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Rev. 07/10/02

LAW WEATHERS & RICHARDSON

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James P. Enright
Direct Dial (616) 732-1705
Direct Fax (616) 913-1205
E-Mail JimEnright@lwr.com

July 31, 2003

Ms. Eileen Furey
U.S. Environmental Protection Agency
Associate Regional Counsel (C-14J)
Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3507

Re: City of Allegan's Response to EPA's Request for Information Pursuant to Section 104(e) of CERCLA for Allied Paper/Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan

Dear Ms. Furey:

Enclosed are the documents that are referenced in and part of the City of Allegan's Response to the 104(e) inquiry referenced above. These include the relevant portions of:

1. Simplified schematic of the current Wastewater Treatment Plant
2. Records of sludge hauled in December 1992 and in 1993
3. Relevant portions of Discharge Monitoring Reports for 1994 through 1999
4. Biosolids Annual Reports for the periods Oct. 1, 1999 - Sept. 30, 2000, Oct. 1, 2000 - Sept. 30, 2001, and Oct. 1, 2001 - Sept. 30, 2002
5. City's current NPDES permit.

Please contact me if you have any questions.

Sincerely,

James P. Enright

:ddb
Enclosures
cc: Dwight E. Fargo, Superintendent, City of Allegan, Wastewater Treatment Plant
Scott G. Smith

STATE OF MICHIGAN

JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY
"Better Service for a Better Environment"
HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973
INTERNET: www deq state mi us
RUSSELL J. HARDING, Director

REPLY TO
PLAINWELL DISTRICT OFFICE
1342 SR 89 W STE B
PLAINWELL MI 49080-1915

September 26, 2000

Mr. Dwight Fargo
City of Allegan
112 Locust Street
Allegan, Michigan 49010

Dear Mr. Fargo:

SUBJECT: National Pollutant Discharge Elimination System (NPDES)
Permit No. MI0020532
Designated Name: Allegan WWTP

On March 21, 2000, we received your application for reissuance of your National Pollutant Discharge Elimination System (NPDES) permit. In accordance with the Michigan Administrative Procedures Act, 1969 PA 306, as amended, your current NPDES permit requirements continue in full force and effect until a new or modified permit has been issued.

Your application is being reviewed to determine completeness and appropriate processing. If additional information is deemed necessary to complete or correct deficiencies in the application, we will contact you to request the specific information needed. Staff will review the application to determine if the request to discharge should be processed as an individual permit or as a certificate of coverage under one or more general permits. You will be given the opportunity to review and comment on the document(s) prior to issuance.

Should you wish to make further inquiry of your application, please contact me.

Sincerely,

Steve Norton

Steve Norton
Plainwell District Office
Surface Water Quality Division
616-692-6962

sn: km

cc: Mr. Dan Dell, DEQ-SWQD, Permits Section

PUBLIC NOTICE

Date: June 14, 2001
Permit No. MI0020532
Allegan WWTP

The Michigan Department of Environmental Quality proposes to reissue a discharge permit to: The City of Allegan, 112 Locust Street, Allegan, Michigan 49010 for a wastewater treatment facility located at 350 North Street, Allegan, Michigan 49010. The applicant treats domestic, commercial, and industrial wastewater for the City and Township of Allegan. The applicant discharges treated wastewater to the Kalamazoo River in, in NE 1/4, NW 1/4, Section 28, T2N, R13W, Allegan County.

The draft permit includes the following modifications to the previously issued permit: Total phosphorus discharged to the Kalamazoo River is limited based on a Total Maximum Daily Load (TMDL) to protect Lake Allegan from high nutrient levels.

Comments or objections to the draft permit received by July 16, 2001 will be considered in the final decision to issue the permit. Persons desiring information regarding the draft permit, procedures for commenting, or requesting a hearing, should contact: Diane M. Carlson, P.E., Permits Section, Surface Water Quality Division, Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan 48909, telephone: 517-335-4118, E-mail: carlsond@state.mi.us

Copies of the public notice, fact sheet, and draft permit may be obtained at http://www.deq.state.mi.us/swq/permits/publicnotice.htm, or at the Surface Water Quality Division Kalamazoo District Office located at 7953 Adobe Road, Kalamazoo, Michigan 49009-5026, telephone: 616-567-3500.

Permit No MI0020532

FACT SHEET

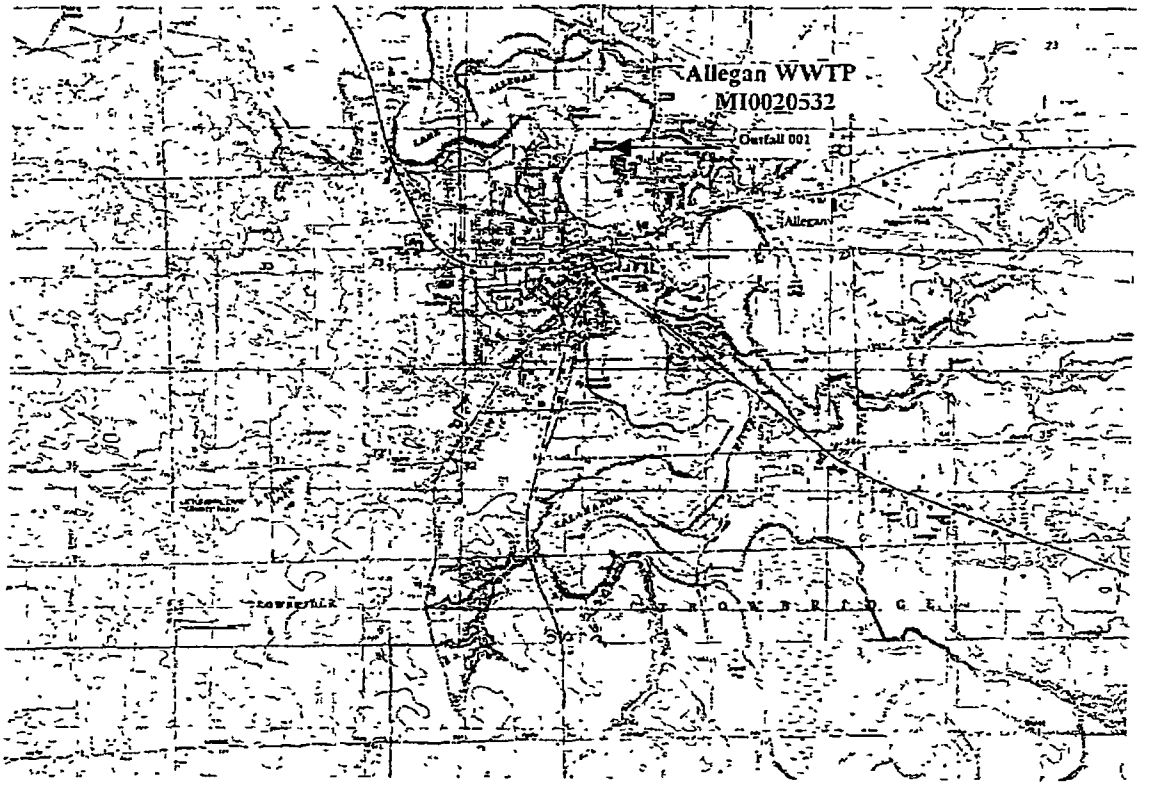
PERMITTEE/FACILITY NAME: City of Allegan/Allegan WWTP

COUNTY: Allegan

DESCRIPTION OF EXISTING WASTEWATER TREATMENT FACILITIES:

The Allegan Wastewater Treatment Plant provides a minimum of secondary treatment utilizing activated sludge technology. The facility includes a bar screen, grit chamber, aeration tanks, final clarifiers, chlorine disinfection, and dechlorination prior to discharge to the Kalamazoo River.

MAP OF DISCHARGE LOCATION:



RECEIVING WATER:

Kalamazoo River is protected for agricultural uses, navigation, industrial water supply, public water supply at the point of water intake, warm-water fish, other indigenous aquatic life and wildlife, partial body contact recreation, and total body contact recreation (May through October).

The receiving stream flows used to develop effluent limitations are a 95% exceedance flow of 410 cfs, a harmonic mean flow of 1090 cfs, and a 90-day, 10-year low flow of 590 cfs.

MIXING ZONE:

For toxic pollutants, the volume of the Kalamazoo River used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is 25% of the applicable design flows of the receiving stream.

For other pollutants, the volume of the Kalamazoo River used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is the applicable design flows of the receiving stream.

EXISTING EFFLUENT QUALITY: (from application dated March 21, 2000)

Parameter	Minimum Daily	Maximum Monthly	Maximum Daily	Units
$CBOD_5$	---	2	4	mg/l
Ammonia Nitrogen (as N)	---	0.3	0.6	mg/l
Total Suspended Solids	---	14	24	mg/l
Total Phosphorus	---	0.3	0.9	mg/l
Fecal Coliform Bacteria	---	16	115	cts/100ml
Total Residual Chlorine	---	0.023	0.036	mg/l
Dissolved Oxygen	6.1	---	---	mg/l
pH	6.8	---	7.3	S.U.

PROPOSED EFFLUENT LIMITATIONS: (see attached pages from draft permit)

BASIS FOR PROPOSED EFFLUENT LIMITATIONS:

Based on this facility's application for an NPDES discharge permit, the Michigan Department of Environmental Quality proposes to issue the applicant a permit to discharge, subject to effluent limitations and certain other conditions within the permit. Effluent limitations for Carbonaceous Biochemical Oxygen Demand, Total Suspended Solids, Total Phosphorus, Fecal Coliform Bacteria, Total Residual Chlorine, Dissolved Oxygen, and pH are based on meeting water quality standards in the Kalamazoo River.

REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group of applications, may leave his/her name, address, and telephone number as part of the file for an application. The list of names will be maintained as a means for persons with an interest in an application to contact others with similar interests.

PUBLIC COMMENT

Comments or objections to the draft permit received between June 14, 2001 and July 17, 2001 will be considered in the final decision to issue the permit.

If submitted comments indicate significant public interest in the application or if useful information may be produced, the Michigan Department of Environmental Quality at its discretion, may hold a public hearing on the application. Any person may request the Michigan Department of Environmental Quality to hold a public hearing on the application. The request should include specific reasons for the request, indicating which portions of the application or draft permit constitutes the need for a hearing.

Public notice of a hearing will be provided at least thirty (30) days in advance. The hearing will normally be held in the vicinity of the discharge. The Michigan Department of Environmental Quality will consider comments made at the hearing when making its final determinations on the permit. Further information regarding the draft permit, and procedures for commenting or requesting a public hearing may be obtained by contacting Diane M. Carlson, P.E., Permits Section, Surface Water Quality Division, Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909, telephone: 517- 335-4118, E-mail: carlsond@state.mi.us

PERMIT NO. MI0020532

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq.; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18,

City of Allegan
112 Locust Street
Allegan, Michigan 49010

is authorized to discharge from the wastewater treatment facility located at

350 North Street
Allegan, Michigan 49010

designated as Allegan WWTP

to the receiving water named the Kalamazoo River in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit takes effect on October 1, 2001. Any person who is aggrieved by this permit may file a sworn petition with the Office of Administrative Hearings of the Michigan Department of Environmental Quality, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department may reject any petition filed more than 60 days after issuance as being untimely. If any condition of this permit is administratively challenged, the entire challenged permit is stayed and the previous permit will remain in effect until the Department takes final action after the Administrative Hearing.

This permit and the authorization to discharge shall expire at midnight, October 1, 2005. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information and forms as are required by the Michigan Department of Environmental Quality to the Kalamazoo District Supervisor of the Surface Water Quality Division by April 1, 2005.

In accordance with R323.2416 of the Michigan Administrative Code, an annual biosolids land application fee shall be paid by each biosolids generator that land applies biosolids. Remittance of the fee to the Department by the permittee shall be postmarked no later than January 31 of each year.

This permit is based on a complete application submitted on March 21, 2000. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules. On its effective date this permit shall supersede NPDES Permit No. MI0020532, expiring October 1, 2000.

Issued _____.

DRAFT 6-14-01
William E. McCracken
Chief, Permits Section
Surface Water Quality Division

PART I

Section A. Limitations and Monitoring Requirements

1. Final Effluent Limitations, Monitoring Point 001A

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal or sanitary wastewater from the Allegan Wastewater Treatment Plant from Monitoring Point 001A through Outfall 001 to the Kalamazoo River. Such discharges shall be limited and monitored by the permittee as follows:

	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration				Frequency	Sample
Parameter	Monthly	7-Day	Daily	Units	Monthly	7-Day	Daily	Units	of Analysis	Type
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	250	400	---	lbs/day	25	40	---	mg/l	5X Weekly	24-Hr Comp
Total Suspended Solids	300	450	---	lbs/day	30	45	---	mg/l	5X Weekly	24-Hr Comp
Ammonia Nitrogen (as N)	---	---	---	lbs/day	(report)	---	---	mg/l	5X Weekly	24-Hr Comp
Total Phosphorus (as P) See Part I.A.1.f	10	---	---	lbs/day	1.0	---	---	mg/l	5X Weekly	24-Hr Comp
Fecal Coliform Bacteria	---	---	---	---	200	400	---	cts/100 ml	5X Weekly	Grab
Total Residual Chlorine	---	---	---	---	---	---	0.038	mg/l	5X Weekly	Grab
Total Silver	(report)	---	---	lbs/day	(report)	---	---	ug/l	Quarterly	24-Hr Comp
					Minimum Monthly					
$CBOD_5$ Minimum % Removal		---	---	---	85	---	---	%	Monthly	Calculation
Total Suspended Solids Minimum % Removal		---	---	---	85	---	---	%	Monthly	Calculation
					Minimum Daily		**Maximum Daily**			
pH	---	---	---	---	6.5	---	9.0	S.U.	5X Weekly	Grab
Dissolved Oxygen	---	---	---	---	3.0	---	---	mg/l	5X Weekly	Grab

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 1.2 MGD

PART I

Section A. Limitations and Monitoring Requirements

a. Narrative Standard
The receiving water shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge.

b. Sampling Locations
Samples for $CBOD_5$, Total Suspended Solids, Ammonia Nitrogen and Total Phosphorus shall be taken prior to disinfection. Samples for Dissolved Oxygen, Fecal Coliform Bacteria, Total Residual Chlorine and pH shall be taken after disinfection. The Kalamazoo District Supervisor of the Surface Water Quality Division may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.

c. Total Residual Chlorine
Compliance with the Total Residual Chlorine limit shall be determined on the basis of one or more grab samples. If more than one (1) sample per day is taken, the additional samples shall be collected in near equal intervals over at least eight (8) hours. The samples shall be analyzed immediately upon collection and the average reported as the daily concentration. EPA Method 330.1 or the Orion 97-70 electrode shall be used for analysis.

d. Percent Removal Requirements
These requirements shall be calculated based on the monthly (30-day) effluent $CBOD_5$ and Total Suspended Solids concentrations and the monthly influent concentrations for approximately the same period.

e. Quantification Level and Sampling Frequency for Total Silver
The quantification level for Total Silver shall not exceed 0.5 ug/l (EPA Method 272.1) unless a higher level is appropriate because of sample matrix interference. Sampling shall be quarterly in January, April, July, and October.

f. Water Quality Trading
The permittee may participate in Michigan's Water Quality Trading Program in accordance with applicable laws and rules.

g. Reduction of Total Phosphorus in the Kalamazoo River/Lake Allegan Watershed
The Department has developed a Total Maximum Daily Load (TMDL) for total phosphorus in Lake Allegan. The TMDL is established to protect Lake Allegan from high nutrient levels which has resulted in violations of water quality standards. In addition to establishing the TMDL, the Department is signatory to a "Cooperative Agreement to Meet Total Maximum Daily Load (TMDL) for Phosphorus" (cooperative agreement). Signatories to the cooperative agreement include point source dischargers of phosphorus and other stakeholders including nonpoint source contributors. The signatories to the cooperative agreement have agreed to participate with other point and nonpoint contributors in the watershed to reduce phosphorus as necessary to meet the goals of the TMDL. This will be accomplished by the development of phosphorus reduction implementation plans and other activities as specified in the cooperative agreement.

If it is determined that commitments under the cooperative agreement are not met, this permit may be modified to include the appropriate phosphorus requirements in accordance with applicable laws and rules.

PART I

Section A. Limitations and Monitoring Requirements

Preventing Pollution is the Best Solution

The Michigan Department of Environmental Quality (DEQ) encourages you to consider pollution prevention alternatives. In some cases pollution prevention may allow you to avoid the need to discharge pollutants which would otherwise require permit limitations -- or even avoid the need for permits altogether! Pollution prevention can:

- ☑ Save Money
- ☑ Reduce Waste
- ☑ Aid Permit Compliance
- ☑ Protect Our Environment
- ☑ Improve Corporate Image
- ☑ Reduce Liability

The DEQ is helping Michigan's industries save money, reduce waste and protect our environment through pollution prevention. DEQ staff can provide pollution prevention assistance through telephone consultations, technical workshops and seminars, and informational publications. They can also put you directly in touch with local support networks and national pollution prevention resources. For more information, contact the Michigan Department of Environmental Quality, Environmental Assistance Division, at 1-800-662-9278 or visit our homepage at http://www.deq.state.mi.us

PART I

Section B. Schedule of Compliance

This section (Section B: Schedule of Compliance) is not needed for this permit.

PART I

Section C. Industrial Waste Pretreatment Program

1. Michigan Industrial Pretreatment Program

a. The permittee shall implement the Michigan Industrial Pretreatment Program approved on September 4, 1985, and modifications thereto, which upon approval are incorporated as enforceable requirements of this permit.

b. The permittee shall comply with Rules 323.2301 through 323.2317 of the Michigan Administrative Code (Part 23 Rules) and the approved Michigan Industrial Pretreatment Program.

c. The permittee shall have the legal authority and necessary interjurisdictional agreements that provide the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program throughout the service area. The legal authority and necessary interjurisdictional agreements shall include, at a minimum, the authority to carry out the activities specified in Rule 323.2306(a).

d. The permittee shall develop procedures which describe, in sufficient detail, program commitments which enable implementation of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(c).

e. The permittee shall establish an interjurisdictional agreement (or comparable document) with all tributary governmental jurisdictions. Each interjurisdictional agreement shall contain, at a minimum, the following:

1) identification of the agency responsible for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries; and

2) the provision of the legal authority which provides the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries.

f. The permittee shall prohibit discharges that:

1) cause, in whole or in part, the permittee's failure to comply with any condition of this permit or the Michigan Act;

2) restrict, in whole or in part, the permittee's management of biosolids.

3) cause, in whole or in part, operational problems at the treatment facility or in its collection system;

4) violate any of the general or specific prohibitions identified in Rule 323.2303(1) and (2);

5) violate categorical standards identified in Rule 323.2311; and

6) violate local limits established in accordance with Rule 323.2303(4).

g. The permittee shall maintain a list of its nondomestic users that meet the criteria of a significant industrial user as identified in Rule 323.2302(cc).

h. The permittee shall develop an enforcement response plan which describes, in sufficient detail, program commitments which will enable the enforcement of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(g).

i. The District Supervisor of the Surface Water Quality Division may require modifications to the approved Michigan Industrial Pretreatment Program which are necessary to ensure compliance with the Part 23 Rules in accordance with Rule 323.2309.

j. The permittee shall not implement changes or modifications to the approved Michigan Industrial Pretreatment Program without notification to the District Supervisor of the Surface Water Quality Division.

PART I

Section C. Industrial Waste Pretreatment Program

k. The permittee shall maintain an adequate revenue structure and staffing level for effective implementation of the approved Michigan Industrial Pretreatment Program.

l. The permittee shall develop and maintain, for a minimum of three (3) years, all records and information necessary to determine nondomestic user compliance with the Part 23 Rules and the approved Michigan Industrial Pretreatment Program. This period of retention shall be extended during the course of any unresolved enforcement action or litigation regarding a nondomestic user or when requested by the Department or the United States Environmental Protection Agency. All of the aforementioned records and information shall be made available upon request for inspection and copying by the Department and the United States Environmental Protection Agency.

m. The permittee shall evaluate the approved Michigan Industrial Pretreatment Program for compliance with the Part 23 Rules and the prohibitions stated in item f (above). Based upon this evaluation, the permittee shall propose to the District Supervisor of the Surface Water Quality Division all necessary changes or modifications to the approved Michigan Industrial Pretreatment Program no later than the next Industrial Pretreatment Program Annual Report due date (see item o below).

n. The permittee shall develop and enforce local limits to implement the prohibitions listed in item f above. Local limits shall be based upon data representative of actual conditions demonstrated in a maximum allowable headworks loading analysis.

o. On or before April 1st of each year, the permittee shall submit, as required by Rule 323.2310(8) an Industrial Pretreatment Program Annual Report on the status of program implementation and enforcement activities. The reporting period shall begin on January 1st and end on December 31st. The Industrial Pretreatment Program Annual Report shall be submitted to the District Supervisor of the Surface Water Quality Division and may be submitted on forms provided by the Department. At a minimum, the Industrial Pretreatment Program Annual Report shall contain the following items:

1) additions, deletions, and any other modifications to the permittee's previously submitted nondomestic user inventory (Rule 323.2306(c)(i));

2) additions, deletions, and any other modifications to the permittee's approved Significant Industrial User List (Rule 323.2306(h));

3) a listing of the names of Significant Industrial Users not inspected by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;

4) a listing of the names of Significant Industrial Users not sampled for all required pollutants by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;

5) a listing of the names of Significant Industrial Users without a permit at any time during the reporting period;

6) a listing of the names of categorical industrial users in significant noncompliance for each of the criteria defined in Rule 323.2302(dd)(i)-(viii);

7) proof of publication of all categorical industrial users in significant noncompliance in the largest daily newspaper in the municipality in which the permittee is located;

PART I

Section C. Industrial Waste Pretreatment Program

8) a summary of the enforcement activities by the permittee during the report period. This Summary shall include:

a) a listing of the names of nondomestic users which were the subject of an enforcement action;

b) the enforcement action taken and the date the action was taken; and

c) whether the nondomestic user returned to compliance by the end of the reporting period (include date nondomestic user returned to compliance).

9) a listing of the names of Significant Industrial Users who did not submit pretreatment reports in accordance with requirements specified in their permit during the reporting period.

10) a listing of the names of Significant Industrial Users who did not self-monitor in accordance with requirements specified in their permit during the reporting period;

11) A summary of results of all the sampling and analyses performed of the wastewater treatment influent, effluent, and sludge conducted in accordance with approved methods during the reporting period; and

12) any other relevant information as requested by the Department.

PART I

Section D. Residuals Management Program

1. Residuals Management Program for Land Application of Biosolids

The permittee is authorized to land apply bulk biosolids or prepare bulk biosolids for land application in accordance with the requirements established in R323.2401 through R323.2418 of the Michigan Administrative Code (Part 24 Rules). The permittee has developed and implemented a Residuals Management Program (RMP) which complies with the requirements of the Part 24 Rules. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with Part II.D.7. of this permit.

The permittee shall continue to implement the Residuals Management Program approved on February 13, 2001, and modifications thereto. The permittee shall certify that current residuals management practices are in accordance with the approved RMP, or propose modifications to the approved RMP. The program certification or proposed modifications shall be submitted to the Kalamazoo District Supervisor of the Surface Water Quality Division on or November 1, 2001. The approved RMP, and any modifications thereto, are enforceable requirements of this permit.

a. Residuals Management Program Description
At a minimum, the program includes:

1) a description of the type and size of facility generating the biosolids;
2) a description of the biosolids treatment processes including the volume of biosolids generated from each process;
3) storage volume provided, if applicable;
4) transportation methods and spill prevention plan;
5) a description of the land application method;
6) a listing of the required information on all land application sites, information on initial application notifications required by R323.2408 and class B biosolids site restriction notifications, if applicable, as specified in R323.2414(3)(f);
7) a land application plan which shows compliance with the applicable management requirements identified in R323.2410 and the loading rates and limitations as specified in R323.2408, R323.2409 and R323.2417;
8) a description of the pathogen reduction method used to comply with R323.2411, R323.2414 and R323.2418;
9) a description of the vector attraction reduction method used to comply with R323.2415; and
10) information on monitoring program, monitoring frequencies pursuant to R323.2412, and one year of records representing the volume and concentrations of pollutants in the biosolids.

b. Modifications to the Approved RMP
The permittee shall submit proposed modifications to its RMP to the Kalamazoo District Supervisor of the Surface Water Quality Division for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Kalamazoo District Supervisor may impose additional requirements and/or limitations to the approved RMP, as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

c. Recordkeeping
Records required by R323.2413 shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.

d. Annual Report
The permittee shall report the number of dry tons of biosolids generated that were applied to the land in the State of Michigan in the state fiscal year (October 1 through September 30). The annual report shall include information required in R323.2413(2)(h) and R323.2413 (3) to (8), except R323.2413 (6)(b), (7)(b), and (8)(b). The report shall be submitted to the Kalamazoo District Supervisor of the Surface Water Quality Division on or before October 30 of each year.

PART II

Section A. Definitions

This list of definitions may include terms not applicable to this permit.

Acute toxic unit (TU_a) means $100/LC_{50}$ where the LC_{50} is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

Bioaccumulative chemical of concern (BCC) means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

Biosolids are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

Bulk biosolids means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

Chronic toxic unit (TU_c) means 100/MATC or $100/IC_{25}$, where the maximum acceptable toxicant concentration (MATC) and IC_{25} are expressed as a percent effluent in the test medium.

Class B Biosolids refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

Daily concentration is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the permit, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any individual sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any individual sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any individual sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Daily loading is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the permit, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

Department means the Michigan Department of Environmental Quality.

Detection Level means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

District Supervisor: The Kalamazoo District Supervisor of the Surface Water Quality Division is located at the Kalamazoo District Office-DEQ, Surface Water Quality Division, 7953 Adobe Road, Kalamazoo, Michigan 49009-5025, telephone: 616-567-3576 (fax: 616-567-9440).

PART II

Section A. Definitions

Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services mailing address is P.O. Box 30195, Lansing, Michigan 48909.

Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality mailing address is P.O. Box 30630, Lansing, Michigan 48909-8130.

EC_{50} means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

Fecal coliform bacteria monthly is the geometric mean of the samples collected in a calendar month (or 30 consecutive days). The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

Fecal coliform bacteria 7-day is the geometric mean of the samples collected in any 7-day period. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Flow Proportioned sample is a composite sample with the sample volume proportional to the effluent flow.

Grab sample is a single sample taken at neither a set time nor flow.

IC_{25} means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

Interference is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

Land Application means spraying or spreading biosolids or a biosolids derivative onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids or biosolids derivative can either condition the soil or fertilize crops or vegetation grown in the soil.

LC_{50} means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

Maximum acceptable toxicant concentration (MATC) means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

PART II

Section A. Definitions

Monthly concentration is the sum of the daily concentrations determined during a reporting month (or 30 consecutive days) divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (*monthly effluent concentration divided by the monthly influent concentration*)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Monthly loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined in the reporting month (or 30 consecutive days). The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMRs.

National Pretreatment Standards are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

NOAEL means the highest tested dose or concentration of a substance that results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

Noncontact Cooling Water is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

Nondomestic user is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes *from toilet, kitchen, laundry, bathing or other facilities used for household purposes.*

Pretreatment is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

POTW is a publicly owned treatment works.

Quantification level means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

Regional Administrator is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

7-day concentration is the sum of the daily concentrations determined during any 7 consecutive days in a reporting month divided by the number of daily concentrations determined. The calculated 7-day concentration will be used to determine *compliance with any maximum 7-day concentration limitations.* When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

7-day loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during any 7 consecutive days in a reporting month. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the permit, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

PART II

Section A. Definitions

Significant industrial user is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Tier I value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity database.

Tier II value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity database.

Toxicity Reduction Evaluation (TRE) means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

Water Quality Standards means the Part 4 Water Quality Standards developed under Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

3-Portion Composite sample is a sample consisting of three equal volume grab samples collected at equal intervals over an 8-hour period.

24-Hour Composite sample is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

PART II

Section B. Monitoring Procedures

1. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants). For parameters not specified in the permit or covered by the regulations, test procedures shall be submitted for approval to the Kalamazoo District Supervisor of the Surface Water Quality Division.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

3. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Michigan Department of Environmental Quality.

PART II

Section C. Reporting Requirements

1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Kalamazoo District Supervisor of the Surface Water Quality Division within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

2. Submittal Requirements for Self-Monitoring Data

Unless instructed on the effluent limits page to conduct "retained self-monitoring," the permittee shall submit self-monitoring data on the Environmental Protection Agency's Discharge Monitoring Report (DMR) forms (monthly summary information) and the Department's Daily Discharge Monitoring Report forms (daily information) to PCS-Data Entry, Surface Water Quality Division, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773, for each calendar month of the authorized discharge period(s). The forms shall be postmarked no later than the 10th day of the month following each month of the authorized discharge period(s).

Alternative Daily Discharge Monitoring Report formats may be used if they provide equivalent reporting details and are approved by the Kalamazoo District Supervisor of the Surface Water Quality Division. For information on electronic submittal of this information, contact the Kalamazoo District Supervisor.

3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Surface Water Quality Division, Michigan Department of Environmental Quality (in the case of Type I or Type II public water supplies, mobile home parks, campgrounds, and marinas, to the staff of the Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality, or, in the case of hospitals, nursing homes and extended care facilities, to the staff of the Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services). Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Kalamazoo District Supervisor of the Surface Water Quality Division, on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the discharge.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the Michigan Act or Rule 35 of the Mobile Home Park Commission Act (Act 96 of the Public Acts of 1987) for assurance of proper facility operation shall be submitted as required by the Department.

5. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Kalamazoo District Supervisor of the Surface Water Quality Division indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

PART II

Section C. Reporting Requirements

6. Noncompliance Notification

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.

b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

7. Spill Notification

The permittee shall immediately report any spill or loss of any product, by-product, intermediate product, oils, solvents, waste material, or any other polluting substance which occurs to the surface waters or groundwaters of the state by calling the Kalamazoo District Supervisor of the Surface Water Quality Division at 616-567-3576, or if the notice is provided after regular working hours call the Department of Environmental Quality's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660); and within ten (10) days of the spill or loss, the permittee shall submit to the Kalamazoo District Supervisor of the Surface Water Quality Division a full written explanation as to the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken, and schedule of implementation.

8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset shall notify the Kalamazoo District Supervisor of the Surface Water Quality Division by telephone within 24 hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;

b. that the permitted wastewater treatment facility was, at the time, being properly operated; and

c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

PART II

Section C. Reporting Requirements

9. Bypass Prohibition and Notification

a. Bypass Prohibition - Bypass is prohibited unless:

1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and

3) the permittee submitted notices as required under 9.b. or 9.c. below.

b. Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Kalamazoo District Supervisor of the Surface Water Quality Division, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Kalamazoo District Supervisor. The Kalamazoo District Supervisor may approve an anticipated bypass, after considering its adverse effects, if it will meet the three conditions listed in 9.a. above.

c. Notice of Unanticipated Bypass - The permittee shall submit notice to the Kalamazoo District Supervisor of the Surface Water Quality Division of an unanticipated bypass by telephone at 616-567-3576 (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.

d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Kalamazoo District Supervisor of the Surface Water Quality Division, and at additional times as directed by the Kalamazoo District Supervisor. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Kalamazoo District Supervisor.

e. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10. of this permit.

f. Definitions

1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

PART II

Section C. Reporting Requirements

10. Notification of Changes in Discharge

The permittee shall notify the Kalamazoo District Supervisor of the Surface Water Quality Division, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application submitted on March 21, 2000. Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

11. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Kalamazoo District Supervisor of the Surface Water Quality Division by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.12.; and 4) the action or activity will not require notification pursuant to Part II.C.10. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

12. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Kalamazoo District Supervisor of the Surface Water Quality Division 30 days prior to the actual transfer of ownership or control.

PART II

Section D. Management Responsibilities

1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Michigan Department of Environmental Quality, as required by Sections 3110 and 4104 of the Michigan Act.

3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or

b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of concentrated solutions, acids, alkalies, salts, oils, or other polluting materials in accordance with the requirements of the Part 5 Rules (Rules 323.1151 through 323.1169 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the Michigan Act.

PART II

Section D. Management Responsibilities

7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit or other pollutants) removed from or resulting from treatment or control of wastewaters, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

8. Treatment System Closure

In the event that discharges from a treatment system are planned to be eliminated, the permittee shall submit a closure plan to the Kalamazoo District Supervisor for approval. The closure plan shall include characterization of any wastewater and residuals which will remain on-site after the discharges are eliminated, along with disposal methods, proposed schedule, and any other relevant information as required by the Kalamazoo District Supervisor. Closure activities involving waste treatment residuals shall be consistent with Part II.D.7. of this permit.

The permittee shall implement the closure activities in accordance with the approved plan. Any wastewater or residual disposal inconsistent with the approved plan shall be considered a violation of this permit. After proper closure of the treatment system, this permit may be terminated.

9. Right of Entry

The permittee shall allow the Michigan Department of Environmental Quality, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials:

a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

10. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

PART II

Section E. Activities Not Authorized by This Permit

1. Discharge to the Groundwaters

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

2. Facility Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities. Approval for such construction for a POTW must be by permit issued under Part 41 of the Michigan Act. Approval for such construction for a mobile home park, campground or marina shall be from the Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality. Approval for such construction for a hospital, nursing home or extended care facility shall be from the Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services upon request.

3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

5. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals from other units of government as may be required by law.

Permit Number or COC Number
MI0020532

State of Michigan
Biosolids Land Application Program

Facility Name
CITY OF ALLEGAN WWTP

Residuals Management Program Development Document

REVISED 9-6-2000

SURFACE WATER QUALITY DIVISION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

EQP 5852 (2/00)

NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier: **SYNAGRO OF MICHIGAN**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **JIM CHESTNUT**
2. Location of Land Application Site: **01N13W20-JC01**
3. Number of hectares applied: **6.9**
4. Date(s) bulk sewage sludge was applied: **OCTOBER 26, 1999 - OCTOBER 27, 1999**
5. Amount of sludge applied (in metric tons): **37.6723**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0015
Cadmium	0.0012
Chromium	0.1015
Copper	1.4097
Lead	0.0840
Mercury	0.0034
Molybdenum	0.0077
Nickel	0.0284
Selenium	0.0003
Zinc	1.5272
Nitrogen	60.3450

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
   c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application.
2. Feed crops cannot be harvested for 30 days after the application of the sludge.
3. Animals cannot graze on the land for 30 days after the application of sludge.
4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure for 1 year after the application of the sludge.
6. Public access to land with low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: **9 - Subsurface Injection**

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assume that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Lena L. Torbet, Technical Manager (800) 575-8343

Lena L. Torbet
Signature

11/8/99
Date Signed

NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier: **SYNAGRO OF MICHIGAN**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **JIM CHESTNUT**
2. Location of Land Application Site: **01N13W20-JC02**
3. Number of hectares applied: **7.7**
4. Date(s) bulk sewage sludge was applied: **OCTOBER 28, 1999 - OCTOBER 29, 1999**
5. Amount of sludge applied (in metric tons): **31.5961**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0011
Cadmium	0.0009
Chromium	0.0762
Copper	1.0579
Lead	0.0630
Mercury	0.0025
Molybdenum	0.0058
Nickel	0.0213
Selenium	0.0002
Zinc	1.1460
Nitrogen	45.2844

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
   c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application.
2. Feed crops cannot be harvested for 30 days after the application of the sludge.
3. Animals cannot graze on the land for 30 days after the application of sludge.
4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
5. Public access to land with a high potential (parks, playgrounds, golf courses) for public exposure for 1 year after the application of the sludge.
6. Public access to land with low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

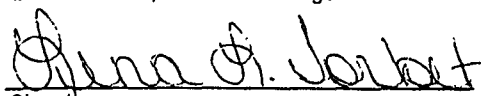
If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: **9 - Subsurface Injection**

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assume that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Lena L. Torbet, Technical Manager — (800) 575-8343



Signature

11/8/99

Date Signed

NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier: **SYNAGRO OF MICHIGAN**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **JIM CHESTNUT**
2. Location of Land Application Site: **01N13W20-JC05**
3. Number of hectares applied: **5.3**
4. Date(s) bulk sewage sludge was applied: **OCTOBER 21, 1999 - OCTOBER 25, 1999**
5. Amount of sludge applied (in metric tons): **25.6718**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0013
Cadmium	0.0010
Chromium	0.0905
Copper	1.2562
Lead	0.0749
Mercury	0.0030
Molybdenum	0.0069
Nickel	0.0253
Selenium	0.0003
Zinc	1.3609
Nitrogen	53.7752

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
   c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application.
2. Feed crops cannot be harvested for 30 days after the application of the sludge.
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6. Public access to land with low potential (private property, remote or restricted public lands) for public exposure will be restricted for 30 days after the application of the sludge.

If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: **9 - Subsurface Injection**

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Lena L. Torbet, Technical Manager (800) 575-8343

Lena L. Torbet
Signature

11/8/99
Date Signed

NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier: **SYNAGRO OF MICHIGAN**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **JIM CHESTNUT**
2. Location of Land Application Site: **01N13W20-JC06**
3. Number of hectares applied: **3.6**
4. Date(s) bulk sewage sludge was applied: **OCTOBER 25, 1999**
5. Amount of sludge applied (in metric tons): **15.7981**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0012
Cadmium	0.0009
Chromium	0.0804
Copper	1.1166
Lead	0.0665
Mercury	0.0027
Molybdenum	0.0061
Nickel	0.0225
Selenium	0.0002
Zinc	1.2097
Nitrogen	47.8002

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
   c. If harvested parts are below the land surface and the sludge was incorporated into the soil within 4 months of being applied, wait to harvest 38 months after application.
2. Feed crops cannot be harvested for 30 days after the application of the sludge.
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If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

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NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **VIRGIL MERCHANT**
2. Location of Land Application Site: **01N13W07-VM01**
3. Number of hectares applied: **1.6**
4. Date(s) bulk sewage sludge was applied: **May 6, 1999**
5. Amount of sludge applied (in metric tons): **10.5923**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0123
Cadmium	0.0047
Chromium	0.0649
Copper	1.2051
Lead	0.1224
Mercury	0.0202
Molybdenum	0.0137
Nickel	0.0373
Selenium	0.0002
Zinc	1.8594
Nitrogen	22.7063

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
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If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: **9 - Subsurface Injection**

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NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **VIRGIL MERCHANT**
2. Location of Land Application Site: **01N13W07-VM02**
3. Number of hectares applied: **5.7**
4. Date(s) bulk sewage sludge was applied: **MAY 5, 1999 - MAY 6, 1999**
5. Amount of sludge applied (in metric tons): **34.8774**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0116
Cadmium	0.0044
Chromium	0.0610
Copper	1.1338
Lead	0.1151
Mercury	0.0190
Molybdenum	0.0129
Nickel	0.0351
Selenium	0.0002
Zinc	1.7492
Nitrogen	21.3614

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
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If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

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NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **VIRGIL MERCHANT**
2. Location of Land Application Site: **01N13W07-VM03**
3. Number of hectares applied: **5.3**
4. Date(s) bulk sewage sludge was applied: **May 5, 1999**
5. Amount of sludge applied (in metric tons): **26.4809**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0095
Cadmium	0.0036
Chromium	0.0499
Copper	0.9270
Lead	0.0941
Mercury	0.0156
Molybdenum	0.0106
Nickel	0.0287
Selenium	0.0001
Zinc	1.4303
Nitrogen	17.4664

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
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4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
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If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: **9 - Subsurface Injection**

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Lena L. Torbet
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NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **VIRGIL MERCHANT**
2. Location of Land Application Site: **01N13W18-VM01**
3. Number of hectares applied: **2.8**
4. Date(s) bulk sewage sludge was applied: **May 7, 1999**
5. Amount of sludge applied (in metric tons): **21.1847**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0140
Cadmium	0.0053
Chromium	0.0742
Copper	1.3773
Lead	0.1398
Mercury	0.0231
Molybdenum	0.0157
Nickel	0.0427
Selenium	0.0002
Zinc	2.1250
Nitrogen	25.9500

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
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3. Animals cannot graze on the land for 30 days after the application of sludge.
4. If harvested turf is used for a lawn or other purpose where there is a high potential for public exposure, then the turf cannot be harvested for 1 year after the application of the sludge to the land.
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If the preparer did not perform vector attraction reduction options (see Part 1), then either option 9 or 10 must be performed by the land applier. Indicate if option 9 or 10 was performed.

Option: **9 - Subsurface Injection**

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Lena L. Torbet, Land Manager (800) 575-8343

Lena L. Torbet
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NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **VIRGIL MERCHANT**
2. Location of Land Application Site: **01N13W18-VM03**
3. Number of hectares applied: **1.6**
4. Date(s) bulk sewage sludge was applied: **MAY 3, 1999 - MAY 4, 1999**
5. Amount of sludge applied (in metric tons): **13.2404**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0154
Cadmium	0.0058
Chromium	0.0811
Copper	1.5064
Lead	0.1530
Mercury	0.0253
Molybdenum	0.0172
Nickel	0.0467
Selenium	0.0002
Zinc	2.3242
Nitrogen	28.3828

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
   b. If harvested parts are below the land surface and the sludge remained on the soil for 4 months before the field was plowed, wait to harvest for 20 months after the application of sludge.
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Option: **9 - Subsurface Injection**

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Lena A. Torbet
Signature

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Date Signed

NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **VIRGIL MERCHANT**
2. Location of Land Application Site: **01N13W18-VM05**
3. Number of hectares applied: **2.4**
4. Date(s) bulk sewage sludge was applied: **April 30, 1999**
5. Amount of sludge applied (in metric tons): **23.8328**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0184
Cadmium	0.0070
Chromium	0.0973
Copper	1.8077
Lead	0.1836
Mercury	0.0304
Molybdenum	0.0206
Nickel	0.0560
Selenium	0.0003
Zinc	2.7891
Nitrogen	34.0594

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
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Lena L. Torbet
Signature

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NOTICE AND NECESSARY INFORMATION - PART 2

Land Applier **SYNAGRO TECHNOLOGIES, INC.**
Preparer: **ALLEGAN WWTP**

Part 2 - To be completed by LAND APPLIERS of Sewage Sludge

1. Name of Landowner/Farmer: **VIRGIL MERCHANT**
2. Location of Land Application Site: **01N13W18-VM05**
3. Number of hectares applied: **2.0**
4. Date(s) bulk sewage sludge was applied: **May 3, 1999**
5. Amount of sludge applied (in metric tons): **23.8328**
6. Record the amount of each metal and nitrogen applied in kilograms per hectare:

Metal	Amount
Arsenic	0.0221
Cadmium	0.0084
Chromium	0.1168
Copper	2.1693
Lead	0.2203
Mercury	0.0364
Molybdenum	0.0247
Nickel	0.0672
Selenium	0.0003
Zinc	3.3469
Nitrogen	40.8713

If a Class B pathogen reduction alternative was used (see Part 1), the following site restrictions must be met:

1. Food crops that may touch the sewage sludge/soil mixture cannot be harvested before the end of the waiting period.
   a. If harvested parts are totally above the land, wait to harvest for 14 months after the application of sewage sludge.
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Lena L. Torbet, Land Manager (800) 575-8343

Lena A. Torbet
Signature

6-7-99
Date Signed

Residuals Management Program - Land Application Site List

CLIENT *Allegan*

OWNER LAST	*FARMER LAST*	*MDEQ*	*SYNAGRO*	*Longitude*	*Latitude*	*ACRE*	*CPLR*
Brown	Brown	01N13W20-DB01	TR20-DB01	85:51:35	42:27:44	7	☐
Brown	Brown	01N13W20-DB02	TR20-DB02	85:51:42	42:27:40	60	☐
Chestnut	Chestnut	01N13W20-JC05	TR20-JC05	85:52:27	42:27:47	13	☐
Chestnut	Chestnut	01N13W20-JC09	TR20-JC09	85:51:57	42:27:30	11	☐
Chestnut	Chestnut	01N13W20-JC06	TR20-JC06	85:52:10	42:27:58	34	☐
Chestnut	Chestnut	01N13W20-JC04	TR20-JC04	85:51:53	42:27:17	21	☐
Chestnut	Chestnut	01N13W20-JC03	TR20-JC03	85:52:41	42:27:18	21	☐
Chestnut	Chestnut	01N13W20-JC01	TR20-JC01	85:52:29	42:27:20	17	☐
Chestnut	Chestnut	01N13W20-JC08	TR20-JC08	85:52:66	42:27:63	15	☐
Chestnut	Chestnut	01N13W20-JC02	TR20-JC02	85:52:14	42:27:18	19	☐
Cook	Cook	02N12W33-DC01	WA33-DC01	85:43:33	42:31:14	72	☐
Cook	Cook	02N12W19-DC01	WA19-DC01	85:46:49	42:32:30	110	☐
Cook	Cook	03N12W31-DC01	HO31-DC01	85:46:17	42:35:45	70	☐
Curtiss	Curtiss	02N12W31-WC01	WA31-WC01	85:46:24	42:30:41	80	☐
Drobny	Chestnut	01S13W06-JD01	PG06-JD01	85:52:25	42:25:19	18	☐
Heckman	Heckman	02N13W13-KH01	AL13-KH01	85:47:51	42:33:13	51	☐
Heckman	Heckman	02N13W36-KH01	AL36-KH01	85:47:36	42:30:52	96	☐
Jorgensen	Jorgensen	01N14W28-DJ01	CH28-DJ01	85:57:43	42:26:24	140	☐

King	Smith	01N14W31-DK01	CH31-DK01	85:59:41	42:25:11	9	☐
Koteras	Sinkler	01N13W26-BK01	TR26-BK01	85:48:55	42:26:52	67	☐
Merchant	Merchant	01N13W07-VM05	TR07-VM05	85:53:47	42:28:44	13	☐
Merchant	Merchant	01N13W07-VM01	TR07-VM01	85:52:49	42:29:13	7	☐
Merchant	Merchant	01N13W07-VM02	TR07-VM02	85:53:50	42:29:42	14	☐
Merchant	Merchant	01N13W18-VM07	TR18-VM07	85:53:10	42:28:22	12	☐
Merchant	Merchant	01N13W07-VM03	TR07-VM03	85:53:31	42:28:53	13	☐
Merchant	Merchant	01N13W18-VM08	TR18-VM08	85:53:95	42:28:17	10	☐
Merchant	Merchant	01N13W07-VM04	TR07-VM04	85:53:06	42:28:48	15	☐
Merchant	Merchant	01N13W18-VM06	TR18-VM06	85:52:56	42:28:25	13	☐
Merchant	Merchant	01N13W18-VM05	TR18-VM05	85:53:47	42:28:29	11	☐
Merchant	Merchant	01N13W18-VM04	TR18-VM04	85:52:47	42:28:32	12	☐
Merchant	Merchant	01N13W18-VM03	TR18-VM03	85:53:06	42:28:33	4	☐
Merchant	Merchant	01N13W18-VM02	TR18-VM02	85:52:48	42:28:34	9	☐
Merchant	Merchant	01N13W18-VM01	TR18-VM01	85:52:57	42:28:38	15	☐
Merchant	Merchant	01N13W07-VM06	TR07-VM06	85:52:58	42:29:19	6	☐
Merchant	Merchant	01N13W18-VM09	TR18-VM09	85:53:12	42:28:15	20	☐
Schafer	Schafer	03N12W33-MS01	HO33-MS01	85:44:21	42:36:28	20	☐
Schafer	Schafer	03N12W33-MS02	H033-MS02	85:44:23	42:35:56	16	☐
Schafer	Schafer	03N12W33-MS03	HO33-MS03	85:44:39	42:36:28	11	☐
Schafer	Schafer	03N12W33-MS04	HO33-MS04	85:44:29	42:35:56	20	☐
Sipple	Sipple	02N11W10-JS01	MA10-JS01	85:35:15	42:34:21	50	☐

Sipple	Sipple	02N11W10-JS02	MA10-JS02	85:35:32	42:34:31	40	☐
Smith	Smith	01N14W19-BS01	CH19-BS01	86.01:13	42:27:29	14	☐

Michigan Department of Environmental Quality - Water Division

BIOSOLIDS ANNUAL REPORT

SECTION I – BIOSOLIDS LAND APPLICATION REPORT

By Authority of Part 31, Water Resources Protection, of Act 451, as amended. This form is to be used by generators and distributors to report biosolids applied to the land which are subject to Part 31. Failure to properly report this information is a violation of Act 451 and subject to penalties as provided. The information provided herein will be used to determine fees to support the program in accordance with Act 451.

REPORTS ARE DUE OCTOBER 30, 2002

Please note: All Treatment Works Treating Domestic Sewage (TWTDS) are required to complete and return this form.

**** If you did not land apply please put 0 for the tons land applied and return only this page to the address below.**
**** If you landfilled your biosolids list the tons that were landfilled and return only this page to the address below.**
**** If you incinerated any portion of your biosolids you must still attach the appropriate DMR's.**
**** If you hauled liquid biosolids to another facility, list the amount hauled and the haulers name.**

REQUIRED INFORMATION - TO BE COMPLETED BY GENERATOR OR DISTRIBUTOR. (Please type or print.)

FACILITY NAME			NPDES, State, or COC Permit Number
City of Allegan Waste Water Treatment Plant			MI0020532
FACILITY ADDRESS			TELEPHONE NO.
350 North St.			616 673-5511
CITY	STATE	ZIP	CONTACT PERSON
Allegan	MI	49010	Dwight Fargo

DURING FISCAL YEAR 2002 (10/1/2002 - 9/30/2002), THE GENERATOR/DISTRIBUATOR NAMED ABOVE LAND APPLIED

173.77 DRY TONS OF BIOSOLIDS	157.61 DRY METRIC TONS OF BIOSOLIDS TO LANDS WITHIN THE STATE OF MICHIGAN
173.77 TOTAL DRY TONS OF BIOSOLIDS GENERATED	0 TOTAL DRY TONS LANDFILLED

0 TOTAL GALLONS TRANSPORTED TO ANOTHER WASTEWATER TREATMENT FACILITY

_____ FACILITY NAME

_____ HAULERS NAME

To convert the English system (short tons) to metric tons, use the following equation: DRY METRIC TONS = DRY SHORT TONS x .907

I certify that the information as provided on this form is true.

_____ 10/18/02

Signature of Authorized Representative — Date

REQUIRED INFORMATION. COMPLETE TO ENSURE YOU RECEIVE YOUR INVOICE IN A TIMELY MANNER.

MAILING NAME			
City of Allegan Waste Water Treatment Plant			
MAILING ADDRESS			
112 Locust St.			
MAILING CITY	STATE	ZIP	CONTACT PERSON
Albion	MI	49090	Dwight Fargo

IF YOU HAVE ANY QUESTIONS ABOUT COMPLETING THIS FORM, PLEASE CONTACT THE DEQ DISTRICT STAFF PERSON FOR YOUR AREA

PLEASE RETURN COMPLETED FORM TO:

SURFACE WATER PERMITS SECTION - PRETREATMENT, BIOSOLIDS, AND SEPTAGE UNIT
WATER DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30273
LANSING MI 48909-7773

Michigan Department of Environmental Quality – Water Division

BIOSOLIDS ANNUAL REPORT

SECTION II – GENERAL FACILITY INFORMATION

By Authority of Part 31 Water Resources Protection of 1994 PA 451, as amended, these forms are to be used by generators and distributors to report biosolids applied to the land. Failure to properly report this information is a violation of Act 451 and subject to penalties as provided.

1. Annual Reporting Year October 1, **2001** to September 30, **2002**	7. Permit Issued (Date) **9/6/00**
2. NPDES or COC Number **MI 0020532**	8. Permit Expires (Date) **9/6/05**
3. Generator Name **City of Allegan Waste Water Treatment Plant**	9. Flow Rate (MGD) **.725 mgd**
4. Facility Name (if Different)	10. Industrial Pretreatment? (check one) X YES ☐ NO
5. Latitude (nearest 15 seconds) **42.525** / Longitude **85.850**	
6. Plant Type **Municipal - POTW**	12. Facility sends biosolids out of state? (Y/N) ☐ YES X NO
13. Facility Physical Address	
Street: **350 North St.**	City: **Allegan**
County: **Allegan** / Zip Code: **49010**	Phone (include area code): **616 686-1117**
14. Facility Mailing Address (if different)	
Street: **112 Locust St.**	City: **Allegan**
County: **Allegan** / Zip Code: **49010**	Phone (include area code): **616 673-7323**
15. Name of Responsible Official **Dwight Fargo**	16. Title of Responsible Official **Superintendent**
16. Facility Contact Person Information	
Name of Contact **Dwight Fargo**	Title **Superintendent**
E-Mail Address	Phone **616 686-1117** / Fax **616 673-7323**
17. Contract Applier(s)/Hauler(s) Information	
Name of Contractor **Synagro**	
Phone **517 487-9280**	Contact **Kari Konyndyk**
Name of Contractor	
Phone	Contact

****Please place all attachments at the end of the packet as appendices not after each section**

DEQ

Michigan Department of Environmental Quality – Water Division

BIOSOLIDS ANNUAL REPORT

SECTION III – FINAL USE/DISPOSAL PRACTICES (reporting year 2002)

1. Land Application (total)	173.77 dt		
Bulk Biosolids:	173.77 dt	Derived Materials:	0 dt
Agricultural Land	173.77 dt	Agricultural Land	0 dt
Forest	0 dt	Forest	0 dt
Public Contact Site	0 dt	Public Contact Site	0 dt
Reclamation Site	0 dt	Reclamation Site	0 dt
Sold or Given Away	0 dt	Sold or Given Away	0 dt
Lawn or Garden	0 dt	Lawn or Garden	0 dt

2. Surface Disposal (Total)	0 dt	3. Landfill (Total)	0 dt
With Liner and LCS	0 dt	Landfill Disposal	0 dt
Without Liner and LCS	0 dt	Landfill Cover	0 dt
4. Incineration	0 dt	Landfill Name	

5. Transported to Another Facility	0 dt	6. Received From Another Facility	0 dt
Name		Name	
Address		Address	
NPDES		NPDES	
Phone		Phone	

7. Other	0 dt	8. Stored	0 dt

9. Certifications: **(*Please Attach All Required Certification Statements)**

Pathogen Certification (select one)	X YES	☐ NO	☐ NOT APPLICABLE
Vector/Attraction Certification? (select one)	X YES	☐ NO	☐ NOT APPLICABLE
Management Practice Certification? (select one)	X YES	☐ NO	☐ NOT APPLICABLE
CPLR Certification? (select one)	☐ YES	X NO	☐ NOT APPLICABLE
- CPLR Site Restrictions Certification? (select one)	☐ YES	X NO	☐ NOT APPLICABLE

**dt = English Dry Tons
**CPLR: Cumulative Pollutant Loading Rate – when pollutants exceed Table 3 concentrations (mg/kg)

If you have any questions about the preparation of this form, contact the DEQ district biosolids program staff person for your area.

Michigan Department of Environmental Quality – Water Division

BIOSOLIDS ANNUAL REPORT

SECTION IV – LAND APPLICATION SITE INFORMATION

****Please See Attached**

SITE _____ - INFORMATION		
Site Name	Site Number	Indian Country ☐ YES ☐ NO
Owner		
Operator		
Applier		
Latitude	Longitude	Reached 90% CPLR App. Rate? ☐ YES ☐ NO
Township	Range	Section
Acres	Acres Used	Crop
Application Rate (tons/acre)	Notification (select one) ☐ YES ☐ NO	Cumulative Load Required (select one) ☐ YES ☐ NO

SITE _____ - INFORMATION		
Site Name	Site Number	Indian Country ☐ YES ☐ NO
Owner		
Operator		
Applier		
Latitude	Longitude	Reached 90% CPLR App. Rate? ☐ YES ☐ NO
Township	Range	Section
Acres	Acres Used	Crop
Application Rate (tons/acre)	Notification (select one) ☐ YES ☐ NO	Cumulative Load Required (select one) ☐ YES ☐ NO

SITE _____ – INFORMATION		
Site Name	Site Number	Indian Country ☐ YES ☐ NO
Owner		
Operator		
Applier		
Latitude	Longitude	Reached 90% CPLR App. Rate? ☐ YES ☐ NO
Township	Range	Section
Acres	Acres Used	Crop
Application Rate (tons/acre)	Notification (select one) ☐ YES ☐ NO	Cumulative Load Required (select one) ☐ YES ☐ NO

****Attach additional copies of this sheet as necessary, or you may attach your contractor's Land Application Reports, or use the DEQ Biosolids Recycling Sheet**

If you have any questions about the preparation of this form, contact the DEQ district biosolids program staff person for your area.

DEQ

Michigan Department of Environmental Quality – Water Division

BIOSOLIDS ANNUAL REPORT

SECTION V – MONITORING DATA SUMMARY

Parameter	Minimum Monthly Concentration	Average Monthly Concentration	Maximum Monthly Concentration	Units	# of Analyses	Method Detection Limit	Test Method	Sample Type
Inorganics								
Total Solids	5.14	5.63	6.43	%	3	.010	160.3	☐ Grab x Composite
Total Arsenic	.778	2.46	3.59	mg/kg	3	.025	7060	☐ Grab x Composite
Total Cadmium	1.81	3.97	8.25	mg/kg	3	.020	200.7/ 6010A	☐ Grab x Composite
Total Copper	375	421.67	455	mg/kg	3	.020	200.7/ 6010A	☐ Grab x Composite
Total Lead	32.7	39.23	49.40	mg/kg	3	.150	200.7/ 6010A	☐ Grab x Composite
Total Mercury	.94	1.83	3.30	mg/kg	3	.030	7470	☐ Grab x Composite
Total Molybdenum	6.09	7.0	7.70	mg/kg	3	.100	200.7/ 6010A	☐ Grab x Composite
Total Nickel	6.9	13.03	16.10	mg/kg	3	.100	200.7/ 6010A	☐ Grab x Composite
Total Selenium	.389	.45	.49	mg/kg	3	.025	7740	☐ Grab x Composite
Total Zinc	496	560	651	mg/kg	3	.010	200.7/ 6010A	☐ Grab x Composite
Nutrients								
Total Kjeldahl Nitrogen	47500	53223.33	58890	mg/kg	3	.100	SM4500 N	☐ Grab x Composite
Ammonium Nitrogen	16800	20636.67	25520	mg/kg	3	1.0	SM4500 N	☐ Grab x Composite
Total Phosphorus	28370	42890	56200	mg/kg	3	5.0	SM4500 P	☐ Grab x Composite
Total Potassium	2500	2580	2680	mg/kg	3	5.0	200.7/ 6010A	☐ Grab x Composite

****Provide the actual analytical data sheets as an attachment at the end of the packet.** All sampling shall be representative of the biosolids applied to land during the reporting period and in accordance with R 323.2415 (2) Frequency of Monitoring – Land Application. Analytical methods shall be in accordance with R 323.2406 (2) Methods for Biosolids. **All analysis should be provided on a dry weight basis.**

If you have any questions about the preparation of this form, contact the DEQ district biosolids program staff person for your area.

BIOSOLIDS ANNUAL REPORT

SECTION VI – PATHOGEN AND VECTOR ATTRACTION REDUCTION

1. **Pathogen Reduction**
   Class A

- ☐ Class A – Alternative 1 (+ elevated temp for specified time)
- ☐ Class A – Alternative 2 (+ pH adjust for specified time/temp)
- ☐ Class A – Alternative 3 (+ virus and helminth criteria)
- ☐ Class A – Alternative 4 (+ other virus and helminth criteria)
- ☐ Class A – Alternative 5 (indicate which PFRP)
  - ☐ (a) composting
  - ☐ (b) heat drying
  - ☐ (c) heat treatment
  - ☐ (d) thermophillic aerobic digestion
  - ☐ (e) beta ray irradiation
  - ☐ (f) gamma ray irradiation
  - ☐ (g) pasteurization
- ☐ Class A – Alternative 6 (attach PFRP equivalent documentation)

2. **Pathogen Reduction**
   Class B

- ☐ Class B – Alternative 1 (geometric mean of 7 samples)
- X Class B – Alternative 2 (indicate which PSRP)
  - X (a) aerobic digestion
  - ☐ (b) air drying
  - ☐ (c) anaerobic digestion
  - ☐ (d) composting
  - ☐ (e) lime stabilization (pH at 25' C or equivalent)
- ☐ Class B – Alternative 3 (attach PSRP equivalent documentation)

3. **Vector Attraction Reduction**
   Method Used:

- ☐ Option 1 (minimum 38 percent reduction in volatile solids)
- ☐ Option 2 (Anaerobic process, with bench-scale demonstration)
- ☐ Option 3 (Aerobic Process, with bench scale demonstration)
- ☐ Option 4 (Specific Oxygen Uptake Rate (SOUR), aerobically digested)
- ☐ Option 5 (Aerobic Process plus raised temperature)
- ☐ Option 6 (Raise pH to 12 and retain at 11.5)
- ☐ Option 7 (75% solids with no unstabilized solids)
- ☐ Option 8 (90% solids with unstabilized solids)
- X Option 9 (Injection below land surface with significant soil coverage)
- ☐ Option 10 (Covering active sewage sludge unit daily)

****Attach all Pathogen Reduction and Vector Attraction Reduction documentation to demonstrate compliance at the end of the packet**

If you have any questions regarding the preparation of this form, contact the DEQ district biosolids program staff person for your area.

BIOSOLIDS ANNUAL REPORT

SECTION VII – SIGNATURE PAGE

Facility Name	NPDES, State Groundwater Discharge, or COC Permit Number
Allegan Wastewater Treatment Plant	**MI 0020532**

CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system of those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there is significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and Official Title: **Dwight Fargo, Superintendent**

Signature: [signature]

Telephone Number: 269 686 1117

Date Signed: 10/18/02

Upon request from the State, you may be required to submit additional information necessary to access biosolids use or disposal practices at your facility or to identify appropriate permitting requirements.

PLEASE RETURN COMPLETED FORMS TO:

SURFACE WATER PERMITS SECTION - PRETREATMENT, BIOSOLIDS, & SEPTAGE UNIT
WATER DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30273
LANSING MI 48909-7773

STATE OF MICHIGAN CERTIFICATION

"I certify, under penalty of law, that the information that will be used to determine compliance with the class B pathogen requirements in R 323.2414 (3)(d) has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project: **City of Allegan Wastewater Treatment Plant**

Reporting Period: **October 1, 2001 to September 30, 2002**

Signature: _____ Date: 10/18/02

STATE OF MICHIGAN CERTIFICATION

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in R 323.2410, the site restrictions in R 323.2414(3)(f) and the vector attraction reduction requirements in R 323.2415(4)(i) has been prepared for each site on which bulk biosolids are applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Projec: Allegan, MI

Reporting Period: December 2001

Name: Mark Miller Synagro

Signature: Mark Miller Date: 2/28/02

The management practices were met as follows:

(1) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.

(2) Biosolids are not applied to land that is flooded, saturated with water, frozen or snow covered such that bulk biosolids enter a wetland or other waters of the state.

(3) Bulk biosolids were only injected on frozen or snow covered ground if there was substantial soil coverage of the applied biosolids. Surface application of bulk non-exceptional quality biosolids, on frozen or snow covered ground only occurred if approval from the department was obtained.

(4) Bulk biosolids were not applied on land having a slope of >6% for surface application or >12% for subsurface injected biosolids unless the biosolids were used in accordance with a department-approved site management plan.

(5) Bulk biosolids were applied at a rate that is less than or equal to the agronomic rate unless the biosolids were applied in accordance with a department-approved site management plan.

(6) Not applicable as biosolids were applied in bulk form.

(7) Each application site was soil sampled before the initial biosolids application and soil fertility testing was performed. Resampling and testing occurs on a regular basis so that the last soil fertility test is not >2 years old at the time of the next biosolids application.

(8) For agricultural land biosolids were not applied if the Bray P1 or the Mehlich 3 soil test levels exceed 300 lbs. P/acre (150 ppm) or 340 lbs P/acre (170 ppm) respectively based on soil samples taken prior to application.

(9)&(10)For silvicultural land the nitrogen and phosphorus application rates outlined in R 323.2410 (9) and (10) were complied with.

(11) Sites were flagged prior to application to meet all the isolation distance requirements in Table 6 of R 323.2410 (11) and biosolids were not applied within the buffer zones.

(12) Biosolids were applied in a manner to maintain a minimum 30-inch separation distance between the soil surface and groundwater at the time of biosolids application. Soil borings were conducted where appropriate to confirm the separation distance was met.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with site restrictions.

The vector attraction reduction requirement was met through R 323.2415(4)(i) injection of biosolids below the land surface with no significant amount of biosolids being present on the land surface within one hour after the biosolids were injected.

NTYPE 7MI: CB T3 LA MP SR INJ

CERTIFICATION

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in §503.14, the site restrictions in §503.32(b)(5), and the vector attraction reduction requirements in §503.33(b)(9) was prepared for each site on which bulk sewage sludge was applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Allegan, MI

Reporting Period: December 2001

Name: Mark Miller Synagro

Signature: Mark Miller Date: 2/28/02

The management practices were met as follows:

(a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.

(b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.

(d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

The vector attraction reduction requirement was met through §503.33(b)(9)–injection of the biosolids below the land surface with no significant amount of biosolids being present on the land surface within one hour after the biosolids are injected.

NTYPE 7: CB T3 LA MP SR INJ

CERTIFICATION

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in §503.14, the site restrictions in §503.32(b)(5), and the vector attraction reduction requirements in §503.33(b)(9) was prepared for each site on which bulk sewage sludge was applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Allegan, MI

Reporting Period: April 2002

Name: Mark Miller Synagro

Signature: Mark Miller Date: 10/6/02

The management practices were met as follows:

(a) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.

(b), (c) Biosolids are applied under management conditions to prevent the movement of biosolids into wetlands or other waters of the United States. These management practices include adherence to slope restrictions, seasonal water table restrictions, floodplain restrictions, frozen and snow covered soils restrictions, and maintaining buffer zones to surface waters (including the 10 meter set back to waters of the United States unless a reduced buffer zone requirement has been approved by the permitting authority) as required by state and internal operating standards.

(d) Biosolids are applied at agronomic rates based on regional, state, and local crop nitrogen requirements. Reclamation rates are established directly with the permitting authority.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

The vector attraction reduction requirement was met through §503.33(b)(9)--injection of the biosolids below the land surface with no significant amount of biosolids being present on the land surface within one hour after the biosolids are injected.

NTYPE 7: CB T3 LA MP SR INJ

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in R 323.2410, the site restrictions in R 323.2414(3)(f) and the vector attraction reduction requirements in R 323.2415(4)(i) has been prepared for each site on which bulk biosolids are applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project(s): Allegan, MI

Reporting Period: April 2002

Name: Mark Miller Synagro

Signature: Mark Miller Date: 10/6/02

The management practices were met as follows:

(1) Sites currently in agricultural production or drastically disturbed lands are not potential habitat for endangered species. Sites which are in a natural state and are converted to agricultural use are evaluated case by case.

(2) Biosolids are not applied to land that is flooded, saturated with water, frozen or snow covered such that bulk biosolids enter a wetland or other waters of the state.

(3) Bulk biosolids were only injected on frozen or snow covered ground if there was substantial soil coverage of the applied biosolids. Surface application of bulk non-exceptional quality biosolids, on frozen or snow covered ground only occurred if approval from the department was obtained.

(4) Bulk biosolids were not applied on land having a slope of >6% for surface application or >12% for subsurface injected biosolids unless the biosolids were used in accordance with a department-approved site management plan.

(5) Bulk biosolids were applied at a rate that is less than or equal to the agronomic rate unless the biosolids were applied in accordance with a department-approved site management plan.

(6) Not applicable as biosolids were applied in bulk form.

(7) Each application site was soil sampled before the initial biosolids application and soil fertility testing was performed. Resampling and testing occurs on a regular basis so that the last soil fertility test is not >2 years old at the time of the next biosolids application.

(8) For agricultural land biosolids were not applied if the Bray P1 or the Mehlich 3 soil test levels exceed 300 lbs. P/acre (150 ppm) or 340 lbs P/acre (170 ppm) respectively based on soil samples taken prior to application.

(9)&(10) For silvicultural land the nitrogen and phosphorus application rates outlined in R 323.2410 (9) and (10) were complied with.

(11) Sites were flagged prior to application to meet all the isolation distance requirements in Table 6 of R 323.2410 (11) and biosolids were not applied within the buffer zones.

(12) Biosolids were applied in a manner to maintain a minimum 30-inch separation distance between the soil surface and groundwater at the time of biosolids application. Soil borings were conducted where appropriate to confirm the separation distance was met.

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with site restrictions.

The vector attraction reduction requirement was met through R 323.2415(4)(i) injection of biosolids below the land surface with no significant amount of biosolids being present on the land surface within one hour after the biosolids were injected.

NTYPE 7MI: CB T3 LA MP SR INJ

Allegan WWTP

MDEQ Biosolids Land Application Site Use

10/01/00-09/30/01

Site ID	Owner	Operator	Location	Date(s) of Application	Total Acres	Acres Used	Gallons Applied	Dry Tons Applied	Dry Metric Tons Applied	Application Rate DT/Acre
AL-TR20C-JC06	Jim Chestnut	Jim Chestnut	42:27:06N - 85:52:11W	12/11/01	34	10	115,200	14.90	13.51	1.49
AL-TR20C-JC05	Jim Chestnut	Jim Chestnut	42:27:05N - 85:52:27W	12/10/01	13	13	180,000	23.27	21.11	1.79
AL-TR18B-VM01	Virgil Merchant	Virgil Merchant	42.23:33 N - 85:52:54 W	12/13/01	60	14	172,800	22.40	20.32	1.60
AL-TR07B-VM02	Virgil Merchant	Virgil Merchant	42:29:04N - 85:53:06W	12/11-12/01	27	20	288,000	27.20	24.67	1.36
AL-TR26-BK01	Benny Koteras	Ken Sinkler	42:26:53N - 85:48:55W	4/25-30/02	67	50	552,800	86.00	78.00	1.72
				Totals:	**107**		**1,308,800**	**173.77**	**157.61**	

April 2002

ALLEGAN

State of Michigan
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BGD Field No..... ..: AL TR26 - BK01
Site No..... ..: MI-AL-TR26-BK01
DNR..... ..: 01N13W26-BK01
Latitude / Longitude.. ..: 42°26'53" / 85°48'55"
# of seasons used..... ..: 3
Acres used this month. ..: 50.0 (20.3 ha)
Total acres in site... ..: 67.0 (27.1 ha)
Method of Application. ..: INJECTED

Biosolids Applied

Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons		Nitrogen TKN %	Nitrogen NH4 %	Nitrogen NO3 %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg
04-25	105200	G	3.6	57.7	16.38	AL	5.32	2.26	0.0019	5.02	0.26	34.15	515	405	16.1	1.83	32.7	2.12	7.46	0.48	3.3
04-26	145200	G	3.6	57.7	22.61	AL	5.32	2.26	0.0019	5.02	0.26	34.15	515	405	16.1	1.83	32.7	2.12	7.46	0.48	3.3
04-29	144000	G	3.6	57.7	22.42	AL	5.32	2.26	0.0019	5.02	0.26	34.15	515	405	16.1	1.83	32.7	2.12	7.46	0.48	3.3
04-30	158400	G	3.6	57.7	24.66	AL	5.32	2.26	0.0019	5.02	0.26	34.15	515	405	16.1	1.83	32.7	2.12	7.46	0.48	3.3
Avg.	11056	G	3.60				5.32	2.26	0.0019	5.02	0.26	34.15	515	405	16.1	1.83	32.7	2.12	7.46	0.48	3.3
Month:	552800	G		DT/AC	1.72		lb/Ac---->	109	(avan)	173	9	0.12	1.77	1.39	0.06	0.01	0.11	0.01	0.03	<.01	0.01
				DMT/HA	3.85		Kg/Ha---------->					0.13	1.98	1.56	0.07	0.01	0.12	0.01	0.03	<.01	0.01
Year:	552800	G		DT/AC	1.72		lb/Ac---->	109	(avan)	173	9	0.12	1.77	1.39	0.06	0.01	0.11	0.01	0.03	<.01	0.01
				DMT/HA	3.85		Kg/Ha---------->					0.13	1.98	1.56	0.07	0.01	0.12	0.01	0.03	<.01	0.01
Cumulative:							lb/Ac---------->					0.49	8.08	7.71	0.14	0.01	0.63	0.05	0.10	<.01	0.05
							Kg/Ha---------->					0.55	9.05	8.64	0.16	0.01	0.71	0.06	0.11	<.01	0.06

Crop and Soil Data

Crop to be fertilized: CO

CEC....: 5.7 meq/100g
pH.....: 6.3 S.U.
Bray P1: 36.0 ppm
K.....: 117.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 165

Acceptable Metal Accumula

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	142.5	7.13
Pb	267.9	28.5
Hg	15	
Mb		
Ni	57	2.85
Se	89	
Zn	285	14.25

Average Weight of Biosolids: 8.65 lb/gallon (AL)

Date of Biosolids Analysis: 03/08/02

Synagro Midwest, Inc.
Biosolids Field Application Form

Source--------> ALLEGAN
BGD Field No.-> AL TR26 - BK01
EL Field No.--> MI-AL-TR26-BK01
Date ---------> April 2002

County -------> ALLEGAN
Township -----> TROWBRIDGE
Legal Desc.: -> 01N13W26-BK01

Landowner ----> BENNY KOTERAS
Operator -----> JIM SINKLER
Address ------> 53 28TH STREET
ALLEGAN, MI 49001

Telephone ----> (616)673-2069

Application Rate (Gal/Acre) 11056
Application (Dry Ton/Acre) 1.72

Useable Acres ------------> 67.0
Acres Used This Month ----> 50.0
Method of Application ----> INJECTED

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * *

C.E.C.(meq/100g) ->	5.7	P (lbs/acre) ---->	72	K (lbs/acre) ---->	234
Soil pH ---------->	6.3	P (ppm) --------->	36	K (ppm) --------->	117
Lime Index ------->	0	Ca (lbs/acre) --->	170	Mg (lbs/acre) --->	170

Crop To Be Fertilized	Yield Goal	Fertilizer/Lime Recommendations			
		N	P2O5	K2O	Lime
CORN	150 B	165	50	70	0.00

* * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * *

Nutrient	Biosolids Additions		Soil Fertility / Test		Total Estimated Nutrients
Nitrogen (Avan lb/Ac)	109	+	0 lb N	=	109 Avan lb/Ac
Phos (P lb/Ac)	173	+	72 lb P	=	245 P lb/Ac
Pot (K lb/Ac)	9	+	234 lb K	=	243 K lb/Ac

* * * * * * * * * BIOSOLIDS ANALYSIS AND FIELD LOADINGS * * * * * * * * *

Biosolids Type(s): ALLEGAN, MI - Analysis Report Date: 03/08/02

	Dry Wt. basis	Lbs/dry ton	Month to Date Lbs/Acre	Allowable Lifetime Lbs/Acre	Allowable Yearly Lbs/Acre	Year to Date Lbs/Acre	Cumulative Lbs/Acre	Percent Utilization
Density ---------->	1.04	---	---					
Weight (Lb/Gal) ->	8.65	---	---					
Solids (%) ------->	3.60	---	---					
TKN (%) ------->	5.32	---	---					
Amn. N (%) ------->	2.26	---	---					
Nit. N (%) ------->	<.01	---	---					
Total Plant Avail. N -->		63.53	109			109		
Total P (%) ------>	5.02	100.3	173			173		
Total K (%) ------>	0.26	5.24	9			9		
Total Ca (%) ----->	1.61	32.1	55.26			55.26		
Total Mg (%) ----->	0.55	11.08	19.07			19.07		
Total SO4 (%) ---->	0.01	0.2	0.35			0.35		
Total As (ppm) ->	3.3	0.01	0.01	36.6		0.01	0.05	0.14
Total Cd (ppm) ->	1.83	<.01	0.01	4.5	0.22	0.01	0.01	0.22
Total Cr (ppm) ->	32.7	0.07	0.11	2679		0.11	0.63	0.02
Total Cu (ppm) ->	405	0.81	1.39	142.5	7.13	1.39	7.71	5.41
Total Pb (ppm) ->	34.15	0.07	0.12	267.9	28.5	0.12	0.49	0.18
Total Hg (ppm) ->	2.12	<.01	0.01	15		0.01	0.05	0.33
Total Mo (ppm) ->	7.46	0.01	0.03			0.03	0.1	
Total Ni (ppm) ->	16.1	0.03	0.06	57	2.85	0.06	0.14	0.25
Total Se (ppm) ->	0.48	<.01	<.01	89		<.01	<.01	<.01
Total Zn (ppm) ->	515	1.03	1.77	285	14.25	1.77	8.08	2.84

December 2001

ALLEGAN

State of Michigan
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BGD Field No.....: AL TR07B - VM02
Site No.....: TR-07B-VM02
DNR.....: 01N13W07-VM02
Latitude / Longitude....: 42°29'04" / 85°53'06"
# of seasons used.....: 2
Acres used this month...: 20.0 (8.1 ha)
Total acres in site.....: 27.0 (10.9 ha)
Method of Application...: INJECTED

Biosolids Applied / Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons		TKN %	Nitrogen NH4 %	Nitrogen NO3 %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg
12-11	72000	G	3	42.0	9.32	AL	5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
12-12	216000	G	3	42.0	27.96	AL	5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Avg.	14400	G	3.00				5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Month:	288000	G		DT/AC	1.86		Lb/Ac---->	103	(avan)	106	9	0.18	2.43	1.70	0.03	0.03	0.13	<.01	0.02	<.01	<.01
				DMT/HA	4.17		Kg/Ha---------->					0.20	2.72	1.90	0.03	0.03	0.15	<.01	0.02	<.01	<.01
Year:	288000	G		DT/AC	1.86		Lb/Ac---->	103	(avan)	106	9	0.18	2.43	1.70	0.03	0.03	0.13	<.01	0.02	<.01	<.01
				DMT/HA	4.17		Kg/Ha---------->					0.20	2.72	1.90	0.03	0.03	0.15	<.01	0.02	<.01	<.01
Cumulative:							Lb/Ac---------->					0.44	6.28	4.20	0.10	0.04	0.26	0.05	0.05	<.01	0.03
							Kg/Ha---------->					0.49	7.03	4.70	0.11	0.04	0.29	0.06	0.06	<.01	0.03

Crop and Soil Data

Crop to be fertilized: CORN

CEC....: 4.7 meq/100g
pH.....: 5.6 S.U.
Bray P1: 46.0 ppm
K.....: 47.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 190 lbs

Acceptable Metal Accumulation

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	117.5	5.88
Pb	267.9	23.5
Hg	15	
Mo		
Ni	47	2.35
Se	89	
Zn	235	11.75

Average Weight of Biosolids: 8.63 lb/gallon (AL)

Date of Biosolids Analysis: 09/21/01 (AL)

Synagro Midwest, Inc.
Biosolids Field Application Form

Source--------> ALLEGAN
BGD Field No.-> AL TR07B - VM02
EL Field No.--> TR-07B-VM02
Date ----------> December 2001

County -------> ALLEGAN
Township -----> TROWBRIDGE
Legal Desc.: -> 01N13W07-VM02

Landowner ----> VIRGIL MERCHANT
Operator -----> VIRGIL MERCHANT
Address ------> 3406 108TH AVE
ALLEGAN, MI 49010

Telephone ----> (616)673-3845

Application Rate (Gal/Acre) 14400
Application (Dry Ton/Acre) 1.86

Useable Acres ------------> 27.0
Acres Used This Month ----> 20.0
Method of Application ----> INJECTED

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * *

C.E.C.(meq/100g) ->	4.7	P (lbs/acre) ---->	92	K (lbs/acre) ---->	94
Soil pH ---------->	5.6	P (ppm) --------->	46	K (ppm) --------->	47
Lime Index ------->	0	Ca (lbs/acre) --->	1100	Mg (lbs/acre) --->	150

Crop To Be Fertilized	Yield Goal	Fertilizer/Lime Recommendations			
		N	P2O5	K2O	Lime
CORN	150 B	190	30	180	2.00

* * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * *

Nutrient	Biosolids Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (Avan lb/Ac)	103	+	0 lb N	=	103 Avan lb/Ac
Phos (P lb/Ac)	106	+	92 lb P	=	198 P lb/Ac
Pot (K lb/Ac)	9	+	94 lb K	=	103 K lb/Ac

* * * * * * * * * BIOSOLIDS ANALYSIS AND FIELD LOADINGS * * * * * * * * *

Biosolids Type(s): ALLEGAN, MI - Analysis Report Date: 09/21/01

	Dry Wt. basis	Lbs/dry ton	Month to Date Lbs/Acre	Allowable Lifetime Lbs/Acre	Allowable Yearly Lbs/Acre	Year to Date Lbs/Acre	Cumula-tive Lbs/Acre	Percent Utili-zation
Density ---------->	1.04	----------	----------					
Weight (Lb/Gal) ->	8.63	----------	----------					
Solids (%) ------>	3.00	----------	----------					
TKN (%) ------>	5.33	----------	----------					
Amn. N (%) ------>	1.68	----------	----------					
Nit. N (%) ------>	<.01	----------	----------					
Total Plant Avail. N -->		55.52	103			103		
Total P (%) ----->	2.84	56.74	106			106		
Total K (%) ----->	0.25	5	9			9		
Total Ca (%) ---->	1.8	36	67.11			67.11		
Total Mg (%) ---->	0.53	10.66	19.87			19.87		
Total SO4 (%) --->	<.01	0.05	0.09			0.09		
Total As (ppm) ->	0.78	<.01	<.01	36.6		<.01	0.03	0.08
Total Cd (ppm) ->	8.25	0.02	0.03	4.5	0.22	0.03	0.04	0.89
Total Cr (ppm) ->	34.9	0.07	0.13	2679		0.13	0.26	<.01
Total Cu (ppm) ->	455	0.91	1.7	117.5	5.88	1.7	4.2	3.57
Total Pb (ppm) ->	49.4	0.1	0.18	267.9	23.5	0.18	0.44	0.16
Total Hg (ppm) ->	1.24	<.01	<.01	15		<.01	0.05	0.33
Total Mo (ppm) ->	6.09	0.01	0.02			0.02	0.05	
Total Ni (ppm) ->	6.9	0.01	0.03	47	2.35	0.03	0.1	0.21
Total Se (ppm) ->	0.39	<.01	<.01	89		<.01	<.01	<.01
Total Zn (ppm) ->	651	1.3	2.43	235	11.75	2.43	6.28	2.67

December 2001

ALLEGAN

State of Michigan
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BSD Field No.....: AL TR18B - VM01
Site No.....: TR-18B-VM1
DNR.....: T01NR13W18-VM01
Latitude / Longitude....: 42°23'33" / 85°52'54"
# of seasons used.....: 4
Acres used this month...: 14.0 (5.7 ha)
Total acres in site.....: 60.0 (24.3 ha)
Method of Application...: INJECTED

Biosolids Applied

Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons		Nitrogen TKN %	Nitrogen NH4 %	Nitrogen NO3 %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg
12-13	172800	G	3	42.0	22.37	AL	5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Avg.	12343	G	3.00				5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Month:	172800	G		DT/AC	1.60		Lb/Ac---->	89 (avan)		91	8	0.16	2.08	1.45	0.02	0.03	0.11	<.01	0.02	<.01	<.01
				DMT/HA	3.58		Kg/Ha---------->					0.18	2.33	1.62	0.02	0.03	0.12	<.01	0.02	<.01	<.01
Year:	172800	G		DT/AC	1.60		Lb/Ac---->	89 (avan)		91	8	0.16	2.08	1.45	0.02	0.03	0.11	<.01	0.02	<.01	<.01
				DMT/HA	3.58		Kg/Ha---------->					0.18	2.33	1.62	0.02	0.03	0.12	<.01	0.02	<.01	<.01
Cumulative:							Lb/Ac---------->					0.88	12.54	9.44	0.23	0.05	0.75	0.08	0.11	0.01	0.09
							Kg/Ha---------->					0.99	14.04	10.57	0.26	0.06	0.84	0.09	0.12	0.01	0.10

Crop and Soil Data

Crop to be fertilized: CORN

CEC....: 3.4 meq/100g
pH.....: 6.1 S.U.
Bray P1: 37.0 ppm
K.....: 20.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 200 lbs

Acceptable Metal Accumulation

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	85	4.25
Pb	267.9	17
Hg	15	
Mo		
Ni	34	1.7
Se	89	
Zn	170	8.5

Average Weight of Biosolids: 8.63 lb/gallon (AL)

Date of Biosolids Analysis: 09/21/01 (AL)

Synagro Midwest, Inc.
Biosolids Field Application Form

Source--------> ALLEGAN
BGD Field No.-> AL TR18B - VM01
EL Field No.--> TR-18B-VM1
Date ---------> December 2001

County -------> ALLEGAN
Township -----> TROWBRIDGE
Legal Desc.: -> T01N-R13W-S18

Landowner ----> VIRGIL MERCHANT
Operator -----> VIRGIL MERCHANT
Address ------> 3406 108TH AVE
ALLEGAN, MI 40910

Telephone ----> (616)673-3845

Application Rate (Gal/Acre) 12343
Application (Dry Ton/Acre) 1.60

Useable Acres ----------> 60.0
Acres Used This Month ----> 14.0
Method of Application ----> INJECTED

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * *

C.E.C.(meq/100g) ->	3.4	P (lbs/acre) ---->	74	K (lbs/acre) ---->	40
Soil pH ---------->	6.1	P (ppm) ---------->	37	K (ppm) ---------->	20
Lime Index ------->	0	Ca (lbs/acre) --->	500	Mg (lbs/acre) --->	90

Crop To Be Fertilized	Yield Goal	Fertilizer/Lime Recommendations			
		N	P2O5	K2O	Lime
CORN	150 B	200	45	180	1.00

* * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * *

Nutrient	Biosolids Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (Avan lb/Ac)	89	+	0 lb N	=	89 Avan lb/Ac
Phos (P lb/Ac)	91	+	74 lb P	=	165 P lb/Ac
Pot (K lb/Ac)	8	+	40 lb K	=	48 K lb/Ac

* * * * * * * * * BIOSOLIDS ANALYSIS AND FIELD LOADINGS * * * * * * * * *

Biosolids Type(s): ALLEGAN, MI - Analysis Report Date: 09/21/01

	Dry Wt. basis	Lbs/dry ton	Month to Date Lbs/Acre	Allowable Lifetime Lbs/Acre	Allowable Yearly Lbs/Acre	Year to Date Lbs/Acre	Cumula-tive Lbs/Acre	Percent Utili-zation
Density ---------->	1.04	----------	----------					
Weight (Lb/Gal) ->	8.63	----------	----------					
Solids (%) ------>	3.00	----------	----------					
TKN (%) ------>	5.33	----------	----------					
Amn. N (%) ------>	1.68	----------	----------					
Nit. N (%) ------>	<.01	----------	----------					
Total Plant Avail. N -->		55.52	89			89		
Total P (%) ----->	2.84	56.74	91			91		
Total K (%) ----->	0.25	5	8			8		
Total Ca (%) ---->	1.8	36	57.52			57.52		
Total Mg (%) ---->	0.53	10.66	17.03			17.03		
Total SO4 (%) --->	<.01	0.05	0.08			0.08		
Total As (ppm) ->	0.78	<.01	<.01	36.6		<.01	0.09	0.25
Total Cd (ppm) ->	8.25	0.02	0.03	4.5	0.22	0.03	0.06	1.11
Total Cr (ppm) ->	34.9	0.07	0.11	2679		0.11	0.75	0.03
Total Cu (ppm) ->	455	0.91	1.45	85	4.25	1.45	9.44	11.11
Total Pb (ppm) ->	49.4	0.1	0.16	267.9	17	0.16	0.88	0.33
Total Hg (ppm) ->	1.24	<.01	<.01	15		<.01	0.08	0.53
Total Mo (ppm) ->	6.09	0.01	0.02			0.02	0.11	
Total Ni (ppm) ->	6.9	0.01	0.02	34	1.7	0.02	0.23	0.68
Total Se (ppm) ->	0.39	<.01	<.01	89		<.01	0.01	0.01
Total Zn (ppm) ->	651	1.3	2.08	170	8.5	2.08	12.54	7.38

December 2001

ALLEGAN

State of Michigan
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BGD Field No.....: AL TR20C - JC05
Site No.....: TR-20C-JC5
DNR.....: T01NR13W20-JC05
Latitude / Longitude....: 42°27'05" / 85°52'27"
# of seasons used.....: 2
Acres used this month...: 13.0 (5.3 ha)
Total acres in site.....: 13.0 (5.3 ha)
Method of Application...: INJECTED

Biosolids Applied

Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons		TKN %	Nitrogen NH4 %	NO3 %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg
12-10	180000	G	3	42.0	23.30	AL	5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Avg.	13846	G	3.00				5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Month:	180000	G		DT/AC	1.79		Lb/Ac---->	100 (avan)		102	9	0.18	2.33	1.63	0.02	0.03	0.13	<.01	0.02	<.01	<.01
				DMT/HA	4.01		Kg/Ha---------->					0.20	2.61	1.83	0.02	0.03	0.15	<.01	0.02	<.01	<.01
Year:	180000	G		DT/AC	1.79		Lb/Ac---->	100 (avan)		102	9	0.18	2.33	1.63	0.02	0.03	0.13	<.01	0.02	<.01	<.01
				DMT/HA	4.01		Kg/Ha---------->					0.20	2.61	1.83	0.02	0.03	0.15	<.01	0.02	<.01	<.01
Cumulative:							Lb/Ac---------->					0.93	11.00	8.98	0.26	0.06	0.66	0.04	0.18	0.01	0.15
							Kg/Ha---------->					1.04	12.32	10.06	0.29	0.07	0.74	0.04	0.20	0.01	0.17

Crop and Soil Data

Crop to be fertilized: CORN

CEC....: 8.9 meq/100g
pH.....: 7.2 S.U.
Bray P1: 56.0 ppm
K.....: 61.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 180 lbs

Acceptable Metal Accumulation

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	222.5	11.13
Pb	267.9	44.5
Hg	15	
Mo		
Ni	89	4.45
Se	89	
Zn	445	22.25

Average Weight of Biosolids: 8.63 lb/gallon (AL)

Date of Biosolids Analysis: 09/21/01 (AL)

Synagro Midwest, Inc.
Biosolids Field Application Form

Source--------> ALLEGAN
BGD Field No.--> AL TR20C - JC05
EL Field No.--> TR-20C-JC5
Date ---------> December 2001

County -------> ALLEGAN
Township -----> TROWBRIDGE
Legal Desc.: -> T01N-R13W-S20

Landowner ----> JIM CHESTNUT
Operator -----> JIM CHESTNUT
Address ------> 3308 104TH
ALLEGAN, MI 48010

Telephone ----> (616)673-2857

Application Rate (Gal/Acre) 13846
Application (Dry Ton/Acre) 1.79

Useable Acres ------------> 13.0
Acres Used This Month ----> 13.0
Method of Application ----> INJECTED

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * *

C.E.C.(meq/100g) ->	8.9	P (lbs/acre) ---->	112	K (lbs/acre) ---->	122
Soil pH ---------->	7.2	P (ppm) ---------->	56	K (ppm) ---------->	61
Lime Index ------->	0	Ca (lbs/acre) --->	2500	Mg (lbs/acre) --->	620

Crop To Be Fertilized	Yield Goal	Fertilizer/Lime Recommendations			
		N	P2O5	K2O	Lime
CORN	150 B	180	30	180	0.00

* * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * *

Nutrient	Biosolids Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (Avan lb/Ac)	100	+	0 lb N	=	100 Avan lb/Ac
Phos (P lb/Ac)	102	+	112 lb P	=	214 P lb/Ac
Pot (K lb/Ac)	9	+	122 lb K	=	131 K lb/Ac

* * * * * * * * * BIOSOLIDS ANALYSIS AND FIELD LOADINGS * * * * * * * * *

Biosolids Type(s): ALLEGAN, MI - Analysis Report Date: 09/21/01

	Dry Wt. basis	Lbs/dry ton	Month to Date Lbs/Acre	Allowable Lifetime Lbs/Acre	Allowable Yearly Lbs/Acre	Year to Date Lbs/Acre	Cumulative Lbs/Acre	Percent Utilization
Density ---------->	1.04	----------	----------					
Weight (Lb/Gal) ->	8.63	----------	----------					
Solids (%) ------>	3.00	----------	----------					
TKN (%) ------>	5.33	----------	----------					
Amn. N (%) ------>	1.68	----------	----------					
Nit. N (%) ------>	<.01	----------	----------					
Total Plant Avail. N -->		55.52	100			100		
Total P (%) ----->	2.84	56.74	102			102		
Total K (%) ----->	0.25	5	9			9		
Total Ca (%) ---->	1.8	36	64.53			64.53		
Total Mg (%) ---->	0.53	10.66	19.11			19.11		
Total SO4 (%) --->	<.01	0.05	0.09			0.09		
Total As (ppm) ->	0.78	<.01	<.01	36.6		<.01	0.15	0.41
Total Cd (ppm) ->	8.25	0.02	0.03	4.5	0.22	0.03	0.06	1.33
Total Cr (ppm) ->	34.9	0.07	0.13	2679		0.13	0.66	0.02
Total Cu (ppm) ->	455	0.91	1.63	222.5	11.13	1.63	8.98	4.04
Total Pb (ppm) ->	49.4	0.1	0.18	267.9	44.5	0.18	0.93	0.35
Total Hg (ppm) ->	1.24	<.01	<.01	15		<.01	0.04	0.27
Total Mo (ppm) ->	6.09	0.01	0.02			0.02	0.18	
Total Ni (ppm) ->	6.9	0.01	0.02	89	4.45	0.02	0.26	0.29
Total Se (ppm) ->	0.39	<.01	<.01	89		<.01	0.01	0.01
Total Zn (ppm) ->	651	1.3	2.33	445	22.25	2.33	11	2.47

December 2001

ALLEGAN

State of Michigan
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BSD Field No.....: AL TR20C - JC06
Site No.....: TR-20C-JC06
LNR.....: T01NR13W20-JC06
Latitude / Longitude....: 42°27'06" / 85°52'11"
# of seasons used.....: 6
Acres used this month...: 10.0 (4.1 ha)
Total acres in site.....: 34.0 (13.8 ha)
Method of Application...: INJECTED

Biosolids Applied

Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons		Nitrogen TKN %	Nitrogen NH4 %	Nitrogen NO3 %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg
12-11	115200	G	3	42.0	14.91	AL	5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Avg.	11520	G	3.00				5.33	1.68	0.0016	2.84	0.25	49.4	651	455	6.9	8.25	34.9	1.24	6.09	0.39	0.78
Month:	115200	G		DT/AC	1.49		Lb/Ac---->		83 (avan)	85	7	0.15	1.94	1.36	0.02	0.02	0.10	<.01	0.02	<.01	<.01
				DMT/HA	3.34		Kg/Ha---------->					0.17	2.17	1.52	0.02	0.02	0.11	<.01	0.02	<.01	<.01
Year:	115200	G		DT/AC	1.49		Lb/Ac---->		83 (avan)	85	7	0.15	1.94	1.36	0.02	0.02	0.10	<.01	0.02	<.01	<.01
				DMT/HA	3.34		Kg/Ha---------->					0.17	2.17	1.52	0.02	0.02	0.11	<.01	0.02	<.01	<.01
Cumulative:							Lb/Ac---------->					1.10	15.16	10.06	0.69	0.06	0.89	0.05	0.16	0.01	0.18
							Kg/Ha---------->					1.23	16.98	11.27	0.77	0.07	1.00	0.06	0.18	0.01	0.20

Crop and Soil Data

Crop to be fertilized: CORN

CEC....: 9.9 meq/100g
pH.....: 7.2 S.U.
Bray P1: 93.0 ppm
K.....: 77.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 190 lbs

Acceptable Metal Accumulation

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	247.5	12.38
Pb	267.9	49.5
Hg	15	
Mo		
Ni	99	4.95
Se	89	
Zn	495	24.75

Average Weight of Biosolids: 8.63 lb/gallon (AL)

Date of Biosolids Analysis: 09/21/01 (AL)

Synagro Midwest, Inc.
Biosolids Field Application Form

Source---------> ALLEGAN
BGD Field No.-> AL TR20C - JC06
EL Field No.--> TR-20C-JC6
Date ---------> December 2001

County -------> ALLEGAN
Township -----> TROWBRIDGE
Legal Desc.: -> T01N-R13W-S20

Landowner ----> JIM CHESTNUT
Operator -----> JIM CHESTNUT
Address ------> 3308 104TH AVE.
ALLEGAN, MI 49010

Telephone ----> (616)673-2857

Application Rate (Gal/Acre) 11520
Application (Dry Ton/Acre) 1.49

Useable Acres ----------> 34.0
Acres Used This Month ----> 10.0
Method of Application ----> INJECTED

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * *

C.E.C.(meq/100g) ->	9.9	P (lbs/acre) ---->	186	K (lbs/acre) ---->	154
Soil pH ---------->	7.2	P (ppm) --------->	93	K (ppm) --------->	77
Lime Index ------->	0	Ca (lbs/acre) --->	2300	Mg (lbs/acre) --->	470

Crop To Be Fertilized	Yield Goal	Fertilizer/Lime Recommendations			
		N	P2O5	K2O	Lime
CORN	150 B	190	0	160	0.00

* * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * *

Nutrient	Biosolids Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (Avan lb/Ac)	83	+	0 lb N	=	83 Avan lb/Ac
Phos (P lb/Ac)	85	+	186 lb P	=	271 P lb/Ac
Pot (K lb/Ac)	7	+	154 lb K	=	161 K lb/Ac

* * * * * * * * * BIOSOLIDS ANALYSIS AND FIELD LOADINGS * * * * * * * * *

Biosolids Type(s): ALLEGAN, MI - Analysis Report Date: 09/21/01

	Dry Wt. basis	Lbs/dry ton	Month to Date Lbs/Acre	Allowable Lifetime Lbs/Acre	Allowable Yearly Lbs/Acre	Year to Date Lbs/Acre	Cumula-tive Lbs/Acre	Percent Utili-zation
Density ---------->	1.04	----------	----------					
Weight (Lb/Gal) ->	8.63	----------	----------					
Solids (%) ------>	3.00	----------	----------					
TKN (%) ------>	5.33	----------	----------					
Amn. N (%) ------>	1.68	----------	----------					
Nit. N (%) ------>	<.01	----------	----------					
Total Plant Avail. N -->		55.52	83			83		
Total P (%) ----->	2.84	56.74	85			85		
Total K (%) ----->	0.25	5	7			7		
Total Ca (%) ---->	1.8	36	53.69			53.69		
Total Mg (%) ---->	0.53	10.66	15.9			15.9		
Total SO4 (%) --->	<.01	0.05	0.07			0.07		
Total As (ppm) ->	0.78	<.01	<.01	36.6		<.01	0.18	0.49
Total Cd (ppm) ->	8.25	0.02	0.02	4.5	0.22	0.02	0.06	1.33
Total Cr (ppm) ->	34.9	0.07	0.1	2679		0.1	0.89	0.03
Total Cu (ppm) ->	455	0.91	1.36	247.5	12.38	1.36	10.06	4.06
Total Pb (ppm) ->	49.4	0.1	0.15	267.9	49.5	0.15	1.1	0.41
Total Hg (ppm) ->	1.24	<.01	<.01	15		<.01	0.05	0.33
Total Mo (ppm) ->	6.09	0.01	0.02			0.02	0.16	
Total Ni (ppm) ->	6.9	0.01	0.02	99	4.95	0.02	0.69	0.7
Total Se (ppm) ->	0.39	<.01	<.01	89		<.01	0.01	0.01
Total Zn (ppm) ->	651	1.3	1.94	495	24.75	1.94	15.16	3.06

Allegan WWTP
LAB ANALYSIS - 2002 Annual Report

	3/8/02 west	3/8/02 east	9/21/01	Minimum	Average	Maximum
DENSITY	8.63	8.66	8.63	8.63	8.64	8.66
MERCURY	3.3	0.94	1.24	0.94	1.83	3.30
NITROGEN, AMMONIA	19590	25520	16800	16800	20636.67	25520.00
NITROGEN, TOTAL	58890	47500	53200	47500	53196.67	58890.00
NITROGEN, TOTAL AVAILABLE	34.04	27.44	30.79	27.44	30.76	34.04
NITROGEN, TOTAL KJELDAHL	58890	47500	53280	47500	53223.33	58890.00
PHOSPHATE	56200	44100	28370	28370	42890.00	56200.00
CHLORIDE	6780	15500	3320	3320	8533.33	15500.00
NITROGEN, NITRATE	19.4	18.7	15.5	15.5	17.87	19.40
SULFATE	93.7	109	24.8	24.8	75.83	109.00
BARIUM	449	411	572	411	477.33	572.00
CADMIUM	1.85	1.81	8.25	1.81	3.97	8.25
CALCIUM	16200	15900	18000	15900	16700.00	18000.00
CHROMIUM	33.8	31.5	34.9	31.5	33.40	34.90
COPPER	435	375	455	375	421.67	455.00
LEAD	35.6	32.7	49.4	32.7	39.23	49.40
MAGNESIUM	5770	5310	5330	5310	5470.00	5770.00
MOLYBDENUM	7.21	7.7	6.09	6.09	7.00	7.70
NICKEL	16.1	16.1	6.9	6.9	13.03	16.10
POTASSIUM	2560	2680	2500	2500	2580.00	2680.00
SILVER	29.1	29.6	24.8	24.8	27.83	29.60
SODIUM	2620	2590	2330	2330	2513.33	2620.00
ZINC	533	496	651	496	560.00	651.00
ARSENIC	3.01	3.59	0.778	0.778	2.46	3.59
SELENIUM	0.486	0.47	0.389	0.389	0.45	0.49
SOLIDS, TOTAL	5.14	5.32	6.43	5.14	5.63	6.43

DEVELOPED BY:
SYNAGRO TECHNOLOGIES, INC. OF MICHIGAN

Delivery Group #2002:0000606
Customer Name: Synagro Midwest
Address: 2300 Eastern Ave SE

Grand Rapids, MI 49507

Project Name: Land Application

Project #:

Contact Name: Ms Kari Konyndyk
: Technical Services Manager
2300 Eastern Ave SE
: Grand Rapids, MI 49507

Sampled By : Client

Lab Log #: 2002:0000606-1 Client Sample ID: Allegan West 1st Qtr Sample Received: 2/18/02 Sample Date: 2/18/02

Parameter	Units	As Received	Dry Wt Bas	Analyst	Method #	Analysis Date	Table 3 Limit	As Rcvd MDL
Prep: Mercury				BYLSMA		2/20/02		
Prep: Metals Digestion				BYLSMA		2/19/02		
Prep: TKN Digestion/Distillation				TENHOOPEN		3/ 7/02		
Density	lb/gal	8.63		BYLSMA	SM2710F	2/18/02		1.00
Mercury	mg/kg	0.170	3.3	BYLSMA	7471	2/21/02	17	0.020
Ammonia, Nitrogen as N	mg/kg	1007	19590	SCHMITT	SM4500N	3/ 6/02		1.000
Nitrogen, Total	mg/kg	3027	58890	ERICKSON	Calculation	3/ 8/02		1.000
Nitrogen, Total Available	lb/ton	1.75	34.04	ERICKSON	Calculation	3/ 8/02		0.1000
Nitrogen, Total Kjeldahl	mg/kg	3027	58890	SCHMITT	SM4500N	3/ 7/02		0.1000
pH	S.U.	7.11		DEWITT	150.1	2/18/02		1.00
Phosphorous, Total as P	mg/kg	2890	56200	ROBINSON	SM4500P	2/19/02		5.00
Chloride	mg/kg	349	6780	HOCH	9056	2/19/02		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<19.4	HOCH	9056	2/19/02		1.00
Sulfate	mg/kg	4.82	93.7	HOCH	9056	2/19/02		1.00
Barium	mg/kg	23.1	449	BYLSMA	200.7/6010A	2/20/02		0.010
Cadmium	mg/kg	0.095	1.85	BYLSMA	200.7/6010A	2/20/02	39	0.020
Calcium	mg/kg	836	16200	BYLSMA	200.7/6010A	2/20/02		0.020
Chromium	mg/kg	1.74	33.8	BYLSMA	200.7/6010A	2/20/02		0.040
Copper	mg/kg	22.4	435	BYLSMA	200.7/6010A	2/20/02	1500	0.020
Lead	mg/kg	1.83	35.6	BYLSMA	200.7/6010A	2/20/02	300	0.150
Magnesium	mg/kg	297	5770	BYLSMA	200.7/6010A	2/20/02		0.050
Molybdenum	mg/kg	0.371	7.21	BYLSMA	200.7/6010A	2/20/02	75	0.100
Nickel	mg/kg	0.832	16.1	BYLSMA	200.7/6010A	2/20/02	420	0.100
Potassium	mg/kg	132	2560	BYLSMA	200.7/6010A	2/20/02		5.00
Silver	mg/kg	1.5	29.1	BYLSMA	200.7/6010A	2/20/02		0.030
Sodium	mg/kg	135	2620	BYLSMA	200.7/6010A	2/20/02		0.100
Zinc	mg/kg	27.4	533	BYLSMA	200.7/6010A	2/20/02	2800	0.010
Arsenic	mg/kg	0.155	3.01	BYLSMA	As7060-Se7740	2/19/02	41	0.050
Selenium	mg/kg	<0.025	<0.486	BYLSMA	As7060-Se7740	2/19/02	36	0.025
Solids, Total (TS)	%	5.14		DEAN	160.3	2/18/02		0.010
Solids, Total Volatile (TVS)	%	57.8		TENHOOPEN	160.4	2/25/02		1.00

Robert Erickson, Laboratory Directo

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

Prein&Newhof
Engineers Surveyors Planners Environmental Laboratory
616.364.7600 F 616.364.4999

Del Group #2001:0003830

Customer Name: Synagro Midwest
Address: 2300 Eastern Ave SE

Grand Rapids, MI 49507

Project Name: Land Application

Contact Name: Ms Kari Konyndyk
: Technical Services Manager
2300 Eastern Ave SE
: Grand Rapids, MI 49507

Sampled By : Client

3260 Evergreen Drive, NE Grand Rapids, MI 49525 t. 616-364-7600 f. 616-364-4222

Prein&Newhof
Engineers ■ Surveyors ■ Planners ■ Environmental ■ Laboratory

Lab Log #: 2001:0003830-1 **Client Sample ID:** Allegan 3rd Qtr Sample Received: 9/14/01 Sample Date: 9/11/01

Parameter	Units	As Received	Dry Wt Bas	Analyst	Method #	Analysis Date	Table 3 Limit	As Rcvd MDL
Prep: Mercury				BYLSMA		9/20/01		
Prep: Metals Digestion				BYLSMA		9/17/01		
Prep: TKN Digestion/Distillation				SCHMITT		9/17/01		
Density	lb/gal	8.63		BYLSMA	SM2710F	9/17/01		1.00
Mercury	mg/kg	0.080	1.24	BYLSMA	7470	9/20/01	17	0.020
Nitrogen, Ammonia as N	mg/kg	1080	16800	SCHMITT	350.3	9/17/01		1.00
Nitrogen, Total	mg/kg	3420	53200	HOCH	Calculation	9/17/01		1.00
Nitrogen, Total Available	lb/ton	1.98	30.79	HOCH	Calculation	9/17/01		0.1000
Nitrogen, Total Kjeldahl	mg/kg	3426	53280	SCHMITT	351.4	9/17/01		0.1000
pH	S.U.	7.35		SCHMITT	150.1	9/14/01		1.00
Phosphate, Total as P	mg/kg	1824	28370	TENHOOPEN	365.3	9/17/01		5.000
Chloride	mg/kg	214	3320	HOCH	9056	9/14/01		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<15.5	HOCH	9056	9/14/01		1.00
Sulfate	mg/kg	1.6	24.8	HOCH	9056	9/14/01		1.00
Barium	mg/kg	36.8	572	BYLSMA	6010A	9/18/01		0.010
Cadmium	mg/kg	0.531	8.25	BYLSMA	6010A	9/18/01	39	0.020
Calcium	mg/kg	1160	18000	BYLSMA	6010A	9/18/01		0.020
Chromium	mg/kg	2.25	34.9	BYLSMA	6010A	9/18/01		0.040
Copper	mg/kg	29.3	455	BYLSMA	6010A	9/18/01	1500	0.020
Lead	mg/kg	3.18	49.4	BYLSMA	6010A	9/18/01	300	0.150
Magnesium	mg/kg	343	5330	BYLSMA	6010A	9/18/01		0.050
Molybdenum	mg/kg	0.392	6.09	BYLSMA	6010A	9/18/01	75	0.100
Nickel	mg/kg	0.444	6.9	BYLSMA	6010A	9/18/01	420	0.100
Potassium	mg/kg	161	2500	BYLSMA	6010A	9/18/01		5.00
Silver	mg/kg	1.6	24.8	BYLSMA	6010A	9/18/01		0.030
Sodium	mg/kg	150	2330	BYLSMA	6010A	9/18/01		0.100
Zinc	mg/kg	41.9	651	BYLSMA	6010A	9/18/01	2800	0.010
Arsenic	mg/kg	<0.050	<0.778	BYLSMA	As7060-Se7740	9/17/01	41	0.050
Selenium	mg/kg	<0.025	<0.389	BYLSMA	As7060-Se7740	9/17/01	36	0.025
Solids, Total (TS)	%	6.43		HOCH	160.3	9/15/01		0.010
Solids, Total Volatile (TVS)	%	42		TENHOOPEN	160.4	9/17/01		1.00

Robert Erickson, Laboratory Director

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

De y Group #2002:0000601

Customer Name: Synagro Midwest
Address: 2300 Eastern Ave SE

Grand Rapids, MI 49507

Project Name: Land Application

Contact Name: Ms Kari Konyndyk
: Technical Services Manager
2300 Eastern Ave SE
: Grand Rapids, MI 49507

Sampled By : Client

4960 Fourteen Mile Drive NE Grand Rapids, MI 49525 t. 616-364-7600 f. 616-364-4292

Prein&Newhof
Engineers ▫ Surveyors ▫ Planners ▫ Environmental ▫ Laboratory

Lab Log #: 2002:0000601-1 **Client Sample ID:** Allegan East 1st Qtr Sample Received: 2/18/02 Sample Date: 2/18/02

Parameter	Units	As Received	Dry Wt Bas	Analyst	Method #	Analysis Date	Table 3 Limit	As Rcvd MDL
Prep: Mercury				BYLSMA		2/20/02		
Prep: Metals Digestion				BYLSMA		2/19/02		
Prep: TKN Digestion/Distillation				TENHOOPEN		3/ 7/02		
Density	lb/gal	8.66		BYLSMA	SM2710F	2/18/02		1.00
Mercury	mg/kg	0.050	0.940	BYLSMA	7471	2/21/02	17	0.020
Ammonia, Nitrogen as N	mg/kg	1358	25520	SCHMITT	SM4500N	3/ 6/02		1.000
Nitrogen, Total	mg/kg	2527	47500	ERICKSON	Calculation	3/ 8/02		1.000
Nitrogen, Total Available	lb/ton	1.46	27.44	ERICKSON	Calculation	3/ 8/02		0.1000
Nitrogen, Total Kjeldahl	mg/kg	2527	47500	SCHMITT	SM4500N	3/ 7/02		0.1000
pH	S.U.	7.26		DEWITT	150.1	2/18/02		1.00
Phosphorous, Total as P	mg/kg	2350	44100	ROBINSON	SM4500P	2/19/02		5.00
Chloride	mg/kg	828	15500	HOCH	9056	2/19/02		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<18.7	HOCH	9056	2/19/02		1.00
Sulfate	mg/kg	5.81	109	HOCH	9056	2/19/02		1.00
Barium	mg/kg	21.9	411	BYLSMA	200.7/6010A	2/20/02		0.010
Cadmium	mg/kg	0.096	1.81	BYLSMA	200.7/6010A	2/20/02	39	0.020
Calcium	mg/kg	848	15900	BYLSMA	200.7/6010A	2/20/02		0.020
Chromium	mg/kg	1.68	31.5	BYLSMA	200.7/6010A	2/20/02		0.040
Copper	mg/kg	20.0	375	BYLSMA	200.7/6010A	2/20/02	1500	0.020
Lead	mg/kg	1.74	32.7	BYLSMA	200.7/6010A	2/20/02	300	0.150
Magnesium	mg/kg	283	5310	BYLSMA	200.7/6010A	2/20/02		0.050
Molybdenum	mg/kg	0.410	7.7	BYLSMA	200.7/6010A	2/20/02	75	0.100
Nickel	mg/kg	0.859	16.1	BYLSMA	200.7/6010A	2/20/02	420	0.100
Potassium	mg/kg	143	2680	BYLSMA	200.7/6010A	2/20/02		5.00
Silver	mg/kg	1.58	29.6	BYLSMA	200.7/6010A	2/20/02		0.030
Sodium	mg/kg	138	2590	BYLSMA	200.7/6010A	2/20/02		0.100
Zinc	mg/kg	26.4	496	BYLSMA	200.7/6010A	2/20/02	2800	0.010
Arsenic	mg/kg	0.191	3.59	BYLSMA	As7060-Se7740	2/19/02	41	0.050
Selenium	mg/kg	<0.025	<0.470	BYLSMA	As7060-Se7740	2/19/02	36	0.025
Solids, Total (TS)	%	5.32		DEAN	160.3	2/18/02		0.010
Solids, Total Volatile (TVS)	%	57.6		TENHOOPEN	160.4	2/25/02		1.00

Robert Erickson, Laboratory Director

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

DEQ

Michigan Department Of Environmental Quality - Surface Water Quality Division

BIOSOLIDS ANNUAL REPORT

SECTION I – BIOSOLIDS LAND APPLICATION REPORT

By Authority of Act 29, PA 1997, as amended, enforced by Act 451 Part 31 This form is to be used by generators and distributors to report biosolids applied to the land which are subject to public Act 29 of 1997 Failure to properly report this information is a violation of Act 451 and Act 29 and subject to penalties as provided. The information provided herein will be used to determine fees to support the program in accordance with Act 29

REPORTS ARE DUE OCTOBER 30, 2001

Please note: All TWTDS's are required to complete and return this form.

** **If you did not land apply please put 0 tons land applied and return only this page to the address below.**
** **If you landfilled your biosolids list the tons that were landfilled and return only this page to the address below.**
** **If you incinerated any portion of your biosolids you must still attach the appropriate DMR's.**

REQUIRED INFORMATION - TO BE COMPLETED BY GENERATOR OR DISTRIBUTOR. (Please type or print.)

FACILITY NAME	NPDES or State Permit Number
CITY OF ALLEGAN WWTP	MI0020532
FACILITY ADDRESS	TELEPHONE NO.:
350 NORTH ST	616 673 5511

CITY	STATE	ZIP CODE	CONTACT PERSON:
ALLEGAN	MI	49010	DWIGHT FARGO

DURING FISCAL YEAR 2001 (OCTOBER 1, 2000 THROUGH SEPTEMBER 30, 2001), THE GENERATOR/DISTRIBUTOR NAMED ABOVE LAND APPLIED

272 DRY TONS OF BIOSOLIDS 246 DRY METRIC TONS OF BIOSOLIDS TO LANDS WITHIN THE STATE OF MICHIGAN.

272 TOTAL DRY TONS OF BIOSOLIDS GENERATED 0 TOTAL DRY TONS LANDFILLED

To convert the English system (short tons) to metric tons, use the following equation: DRY METRIC TONS = DRY SHORT TONS x .907

I certify that the information as provided on this form is true.

Signature of Authorized Representative — Date 10/2/01

REQUIRED INFORMATION. COMPLETE TO ENSURE YOU RECEIVE YOUR INVOICE IN A TIMELY MANNER.

MAILING NAME			
CITY OF ALLEGAN WWTP			
MAILING ADDRESS			
112 LOCUST ST			
MAILING CITY	STATE	ZIP CODE	CONTACT PERSON
ALLEGAN	MI	49010	DWIGHT FARGO

If you have any questions about the preparation of this form, contact the DEQ district staff person for your area

PLEASE RETURN COMPLETED FORM TO:

PROGRAM SUPPORT-PRETREATMENT & BIOSOLIDS
SURFACE WATER QUALITY DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30273
LANSING MI 48909-7773

EQP 5865 (Rev. 9/01)

DEQ

Michigan Department of Environmental Quality – Surface Water Quality Division

BIOSOLIDS ANNUAL REPORT

SECTION III – FINAL USE/DISPOSAL PRACTICES (reporting year _____)

1. Land Application (total)	272 dt		
Bulk Biosolids:	272 dt	Derived Materials:	0 dt
Agricultural Land	272 dt	Agricultural Land	_____ dt
Forest	0 dt	Forest	_____ dt
Public Contact Site	0 dt	Public Contact Site	_____ dt
Reclamation Site	0 dt	Reclamation Site	_____ dt
Sold or Given Away	0 dt	Sold or Given Away	_____ dt
Lawn or Garden	0 dt	Lawn or Garden	_____ dt
2. Surface Disposal (Total)	0 dt	3. Landfill (Total)	0 dt
With Liner and LCS	_____ dt	Landfill Disposal	_____ dt
Without Liner and LCS	_____ dt	Landfill Cover	_____ dt
4. Incineration	0 dt	Landfill Name	
5. Transported to Another Facility	0 dt	6. Received From Another Facility	0 dt
Name		Name	
Address		Address	
NPDES		NPDES	
Phone		Phone	
7. Other	0 dt	8. Stored	0 dt

9. Certifications: **(*Please Attach All Required Certification Statements)**

Pathogen Certification (select one)	☒ YES	☐ NO	☐ NOT APPLICABLE
Vector/Attraction Certification? (select one)	☒ YES	☐ NO	☐ NOT APPLICABLE
Management Practice Certification? (select one)	☒ YES	☐ NO	☐ NOT APPLICABLE
CPLR Certification? (select one)	☐ YES	☐ NO	☒ NOT APPLICABLE
- CPLR Site Restrictions Certification? (select one)	☐ YES	☐ NO	☒ NOT APPLICABLE

**dt = English Dry Tons
**CPLR: Cumulative Pollutant Loading Rate – when pollutants exceed Table 3 concentrations (mg/kg)

If you have any questions about the preparation of this form, contact the DEQ district biosolids program staff person for your area.

EQP 5865 (9/2001)

SYNAGRO

A Residuals Management Company

MICHIGAN OPERATING REPORT

MAY 2001

ALLEGAN WWTP, MI

SYNAGRO

A Residuals Management Company

June 27, 2001

Dwight Fargo
Allegan WWTP
112 Locust Street
Allegan, MI 49010

Dear Mr. Fargo:

Enclosed are the Waste Disposal Sheets and Field Application Forms for all fields receiving biosolids that were completed by Synagro Midwest, Inc. during the month of May 2001. In accordance with R 323.2413 please sign and retain these documents in your records.

Should you have any questions please contact me at your convenience at (616-)887-1144.

Sincerely,

Kari Konyndyk

Kari Konyndyk
Technical Services Manager

Enclosures

ksw\kk:MI.

Synagro Midwest, Inc.
4343 Infirmary Road, Miamisburg, OH 45342 • Ph: (937) 384-0659 • Fax: (937) 384-0674

May 2001

ALLEGAN

State of Michigan
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BGD Field No.....: AL TR07 - VM04
Site No.....: MI-AL-TR07-VM04
DNR.....: 01N13W07-VM04
Latitude / Longitude....: 42°28'47" / 85°53'05"
# of seasons used.....: 1
Acres used this month...: 20.0 (8.1 ha)
Total acres in site.....: 28.0 (11.3 ha)
Method of Application...: INJECTED

Biosolids Applied

Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons		Nitrogen TKN %	Nitrogen NH4 %	Nitrogen NO3 %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg
05-23	48000	G	5.13	68.1	10.63	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
05-30	104000	G	5.13	68.1	23.02	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
05-31	152000	G	5.13	68.1	33.65	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
Avg.	15200	G	5.13				6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
Month:	304000	G		DT/AC	3.36		lb/Ac---->	126	(avan)	460	23	0.16	2.23	2.29	0.05	<.01	0.20	0.02	0.04	<.01	0.03
				DMT/HA	7.53		Kg/Ha---------->					0.18	2.50	2.56	0.06	<.01	0.22	0.02	0.04	<.01	0.03
Year:	304000	G		DT/AC	3.36		lb/Ac---->	126	(avan)	460	23	0.16	2.23	2.29	0.05	<.01	0.20	0.02	0.04	<.01	0.03
				DMT/HA	7.53		Kg/Ha---------->					0.18	2.50	2.56	0.06	<.01	0.22	0.02	0.04	<.01	0.03
Cumulative:							lb/Ac---------->					0.16	2.23	2.29	0.05	<.01	0.20	0.02	0.04	<.01	0.03
							Kg/Ha---------->					0.18	2.50	2.56	0.06	<.01	0.22	0.02	0.04	<.01	0.03

Crop and Soil Data

Crop to be fertilized: CORN

CEC....: 3.6 meq/100g
pH.....: 5.9 S.U.
Bray P1: 36.0 ppm
K.....: 21.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 200 lbs/ac

Acceptable Metal Accumulations

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	90	4.5
Pb	267.9	18
Hg	15	
Mo		
Ni	36	1.8
Se	89	
Zn	180	9

Average Weight of Biosolids: 8.63 lb/gallon (AL)

Date of Biosolids Analysis: 03/12/01 (AL)

Synagro Midwest, Inc.
Biosolids Field Application Form

Source--------> ALLEGAN
BGD Field No.-> AL TR07 - VM04
EL Field No.--> MI-AL-TR07-VM04
Date ---------> May 2001

County -------> ALLEGAN
Township -----> TROWBRIDGE
Legal Desc.: -> 01N13W07-VM04

Landowner ----> VIRGIL MERCHANT
Operator -----> VIRGIL MERCHANT
Address ------> 3406 108TH AVE
ALLEGAN, MI 49010

Telephone ----> (616)673-3845

Application Rate (Gal/Acre) 15200
Application (Dry Ton/Acre) 3.36

Useable Acres ------------> 28.0
Acres Used This Month ----> 20.0
Method of Application ----> INJECTED

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * *

C.E.C.(meq/100g) ->	3.6	P (lbs/acre) ---->	72	K (lbs/acre) ---->	42
Soil pH ---------->	5.9	P (ppm) --------->	36	K (ppm) --------->	21
Lime Index ------->	0	Ca (lbs/acre) --->	500	Mg (lbs/acre) --->	100

Crop To Be Fertilized	Yield Goal	Fertilizer/Lime Recommendations			
		N	P2O5	K2O	Lime
CORN	150 B	200	50	180	1.50

* * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * *

Nutrient	Biosolids Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (Avan lb/Ac)	126	+	0 lb N	=	126 Avan lb/Ac
Phos (P lb/Ac)	460	+	72 lb P	=	532 P lb/Ac
Pot (K lb/Ac)	23	+	42 lb K	=	65 K lb/Ac

* * * * * * * * * BIOSOLIDS ANALYSIS AND FIELD LOADINGS * * * * * * * * *

Biosolids Type(s): ALLEGAN, MI - Analysis Report Date: 03/12/01

	Dry Wt. basis	Lbs/dry ton	Month to Date Lbs/Acre	Allowable Lifetime Lbs/Acre	Allowable Yearly Lbs/Acre	Year to Date Lbs/Acre	Cumula-tive Lbs/Acre	Percent Utili-zation
Density --------->	1.04	---	---					
Weight (Lb/Gal) ->	8.63	---	---					
Solids (%) ------>	5.13	---	---					
TKN (%) ------>	6.18	---	---					
Amn. N (%) ------>	0.79	---	---					
Nit. N (%) ------>	<.01	---	---					
Total Plant Avail. N -->		37.42	126			126		
Total P (%) ----->	6.84	136.7	460			460		
Total K (%) ----->	0.34	6.76	23			23		
Total Ca (%) ---->	1.09	21.8	73.35			73.35		
Total Mg (%) ---->	0.4	7.94	26.72			26.72		
Total SO4 (%) --->	<.01	0.15	0.49			0.49		
Total As (ppm) ->	4.21	0.01	0.03	36.6		0.03	0.03	0.08
Total Cd (ppm) ->	0.38	<.01	<.01	4.5	0.22	<.01	<.01	<.01
Total Cr (ppm) ->	30.1	0.06	0.2	2679		0.2	0.2	<.01
Total Cu (ppm) ->	340	0.68	2.29	90	4.5	2.29	2.29	2.54
Total Pb (ppm) ->	23.1	0.05	0.16	267.9	18	0.16	0.16	0.06
Total Hg (ppm) ->	2.82	0.01	0.02	15		0.02	0.02	0.13
Total Mo (ppm) ->	6.29	0.01	0.04			0.04	0.04	
Total Ni (ppm) ->	7.83	0.02	0.05	36	1.8	0.05	0.05	0.14
Total Se (ppm) ->	0.13	<.01	<.01	89		<.01	<.01	<.01
Total Zn (ppm) ->	331	0.66	2.23	180	9	2.23	2.23	1.24

SYNAGRO

A Residuals Management Company

MICHIGAN OPERATING REPORT

APRIL 2001

ALLEGAN WWTP, MI

SYNAGRO

A Residuals Management Company

June 27, 2001

Dwight Fargo
Allegan WWTP
112 Locust Street
Allegan, MI 49010

Dear Mr. Fargo:

Enclosed are the Waste Disposal Sheets and Field Application Forms for all fields receiving biosolids that were completed by Synagro Midwest, Inc. during the month of April 2001. In accordance with R 323.2413 please sign and retain these documents in your records.

Should you have any questions please contact me at your convenience at (616-)887-1144.

Sincerely,

Kari Konyndyk

Kari Konyndyk
Technical Services Manager

Enclosures

ksw\kk:MI.

Synagro Midwest, Inc.
4343 Infirmary Road, Miamisburg, OH 45342 • Ph: (937) 384-0659 • Fax: (937) 384-0674

April 2001

ALLEGAN

State of Michigan
Department of Environmental Quality

BIOSOLIDS APPLICATION SHEET

BGD Field No.....: AL TR26 - BK01
Site No.....: MI-AL-TR26-BK01
DNR.....: 01N13W26-BK01
Latitude / Longitude....: 42°26'53" / 85°48'55"
# of seasons used.....: 3
Acres used this month...: 50.0 (20.3 ha)
Total acres in site.....: 67.0 (27.1 ha)
Method of Application...: INJECTED

Biosolids Applied

Biosolids Analysis and Soil Loading Rates

DATE	Amount	Unit	% Solids	% VS	Dry Tons		TKN %	Nitrogen NH4 %	Nitrogen NO3 %	Phos. %	Potass. %	Lead mg/kg	Zinc mg/kg	Copper mg/kg	Nickel mg/kg	Cadmium mg/kg	Chrom. mg/kg	Mercury mg/kg	Molyb. mg/kg	Selen. mg/kg	Arsenic mg/kg
04-11	46000	G	6	68.1	11.91	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
04-12	64000	G	6	68.1	16.57	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
04-16	96000	G	6	68.1	24.85	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
04-17	72000	G	6	68.1	18.64	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
04-18	104000	G	6	68.1	26.93	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
04-19	199000	G	6	68.1	51.52	AL	6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
Avg.	11620	G	6.00				6.18	0.79	0.0046	6.84	0.34	23.1	331	340	7.83	0.38	30.1	2.82	6.29	0.13	4.21
Month:	581000	G		DT/AC	3.01		Lb/Ac---->	113	(avan)	411	20	0.14	1.99	2.05	0.05	<.01	0.18	0.02	0.04	<.01	0.03
				DMT/HA	6.74		Kg/Ha---------->					0.16	2.23	2.30	0.06	<.01	0.20	0.02	0.04	<.01	0.03
Year:	581000	G		DT/AC	3.01		Lb/Ac---->	113	(avan)	411	20	0.14	1.99	2.05	0.05	<.01	0.18	0.02	0.04	<.01	0.03
				DMT/HA	6.74		Kg/Ha---------->					0.16	2.23	2.30	0.06	<.01	0.20	0.02	0.04	<.01	0.03
Cumulative:							Lb/Ac---------->					0.38	6.31	6.32	0.09	0.01	0.52	0.04	0.07	<.01	0.03
							Kg/Ha---------->					0.43	7.07	7.08	0.10	0.01	0.58	0.04	0.08	<.01	0.03

Crop and Soil Data

Crop to be fertilized: CORN

CEC....: 5.7 meq/100g
pH.....: 6.3 S.U.
Bray P1: 36.0 ppm
K.....: 117.0 ppm

Crop Yield Goal: 150 B

Nitrogen Recommended: 165 lbs/ac

Acceptable Metal Accumulations

	Total	Yearly
As	36.6	
Cd	4.5	0.22
Cr	2679	
Cu	142.5	7.13
Pb	267.9	28.5
Hg	15	
Mo		
Ni	57	2.85
Se	89	
Zn	285	14.25

Average Weight of Biosolids: 8.63 lb/gallon (AL)

Date of Biosolids Analysis: 03/12/01 (AL)

Synagro Midwest, Inc
Biosolids Field Application Form

Source--------> ALLEGAN
BGD Field No -> AL TR26 - BK01
EL Field No --> MI-AL-TR26-BK01
Date ---------> April 2001

County -------> ALLEGAN
Township -----> TROWBRIDGE
Legal Desc ---> 01N13W26-BK01

Landowner ----> BENNY KOTERAS
Operator - -- > JIM SINKLER
Address ------> 53 28TH STREET
ALLEGAN, MI 49001

Telephone ----> (616)673-2069

Application Rate (Gal/Acre) 11620
Application (Dry Ton/Acre) 3 01

Useable Acres ------------> 67 0
Acres Used This Month ----> 50 0
Method of Application ----> INJECTED

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * *

C E C (meq/100g) ->	5 7	P (lbs/acre) ---->	72	K (lbs/acre) ---->	234
Soil pH ---------->	6 3	P (ppm) --------->	36	K (ppm) --------->	117
Lime Index ------->	0	Ca (lbs/acre) --->	1400	Mg (lbs/acre) --->	170

Crop To Be Fertilized	Yield Goal	Fertilizer/Lime Recommendations N	P2O5	K2O	Lime
CORN	150 B	165	50	70	0 00

* * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * *

Nutrient	Biosolids Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (Avan lb/Ac)	113	+	0 lb N	=	113 Avan lb/Ac
Phos (P lb/Ac)	411	+	72 lb P	=	483 P lb/Ac
Pot (K lb/Ac)	20	+	234 lb K	=	254 K lb/Ac

* * * * * * * * * BIOSOLIDS ANALYSIS AND FIELD LOADINGS * * * * * * * * *

Biosolids Type(s) ALLEGAN, MI - Analysis Report Date 03/12/01

	Dry Wt basis	Lbs/dry ton	Month to Date Lbs/Acre	Allowable Lifetime Lbs/Acre	Allowable Yearly Lbs/Acre	Year to Date Lbs/Acre	Cumulative Lbs/Acre	Percent Utilization
Density --------->	1 04	---------	---------					
Weight (Lb/Gal) ->	8 63	---------	---------					
Solids (%) ------>	6 00	---------	---------					
TKN (%) ------>	6 18	---------	---------					
Amn N (%) ------>	0 79	---------	---------					
Nit N (%) ------>	< 01	---------	---------					
Total Plant Avail N -->		37 42	113			113		
Total P (%) ----->	6 84	136 7	411			411		
Total K (%) ----->	0 34	6 76	20			20		
Total Ca (%) ---->	1 09	21 8	65 58			65 58		
Total Mg (%) ---->	0 4	7 94	23 89			23 89		
Total SO4 (%) --->	< 01	0 15	0 44			0 44		
Total As (ppm) ->	4 21	0 01	0 03	36 6		0 03	0 03	0 08
Total Cd (ppm) ->	0 38	< 01	< 01	4 5	0 22	< 01	0 01	0 22
Total Cr (ppm) ->	30 1	0 06	0 18	2679		0 18	0 52	0 02
Total Cu (ppm) ->	340	0 68	2 05	142 5	7 13	2 05	6 32	4 44
Total Pb (ppm) ->	23 1	0 05	0 14	267 9	28 5	0 14	0 38	0 14
Total Hg (ppm) ->	2 82	0 01	0 02	15		0 02	0 04	0 27
Total Mo (ppm) ->	6 29	0 01	0 04			0 04	0 07	
Total Ni (ppm) ->	7 83	0 02	0 05	57	2 85	0 05	0 09	0 16
Total Se (ppm) ->	0 13	< 01	< 01	89		< 01	< 01	< 01
Total Zn (ppm) ->	331	0 66	1 99	285	14 25	1 99	6 31	2 21

Delivery Group #2001:0000735

Customer Name: Synagro Midwest
Address: Michigan Office - Western
P.O. Box 292
Sparta, MI 49345

Project #: 990300L 3/12/01
Contact Name: Ms Kari Konyndyk
: P.O. Box 292

: Sparta, MI 49345

Project Name: Land Application

Sampled By : Client

Prein&Newhof
Engineers • Surveyors • Environmental & Soils Laboratory
3260 Evergreen NE Grand Rapids, MI 49525 Telephone 616-364-7600 Fax 616-364-4222 lab@preinnewhof.com

Lab Log #: 2001:0000735-1 Client Sample ID: Allegan--1st Quarter Sample Received: 2/28/01 Sample Date: 2/28/01

Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				FRITSMA		3/ 8/01		
Prep: Metals Digestion				FRITSMA		3/ 2/01		
Prep: TKN Digestion/Distillation				SCHMITT		3/ 1/01		
Density	lb/gal	8.63		HOCH	SM2710F	3/ 8/01		1.00
Mercury	mg/kg	0.150	2.82	FRITSMA	7470	3/ 9/01	17	0.020
Nitrogen, Ammonia as N	mg/kg	419	7890	SCHMITT	350.3	2/28/01		1.00
Nitrogen, Total	mg/kg	3270	61700	FRITSMA	Calculation	3/ 2/01		1.00
Nitrogen, Total Available	lb/ton	1.89	35.59	FRITSMA	Calculation	3/ 2/01		0.1000
Nitrogen, Total Kjeldahl	mg/kg	3279	61750	SCHMITT	351.4	3/ 1/01		0.1000
pH	S.U.	6.93		TENHOOPEN	150.1	2/28/01		1.00
Phosphate, Total as P	mg/kg	3629	68350	TENHOOPEN	365.3	3/ 1/01		5.000
Chloride	mg/kg	225	4230	FRITSMA	9056	3/ 1/01		1.00
Nitrogen, Nitrate as N	mg/kg	2.42	45.6	FRITSMA	9056	3/ 1/01		1.00
Sulfate	mg/kg	3.9	73.4	FRITSMA	9056	3/ 1/01		1.00
Barium	mg/kg	18.0	338	FRITSMA	6010A	3/ 7/01		0.010
Cadmium	mg/kg	<0.020	<0.377	FRITSMA	6010A	3/ 7/01	39	0.020
Calcium	mg/kg	583	10900	FRITSMA	6010A	3/ 7/01		0.020
Chromium	mg/kg	1.6	30.1	FRITSMA	6010A	3/ 7/01		0.040
Copper	mg/kg	18.1	340	FRITSMA	6010A	3/ 7/01	1500	0.020
Lead	mg/kg	1.23	23.1	FRITSMA	6010A	3/ 7/01	300	0.150
Magnesium	mg/kg	211	3970	FRITSMA	6010A	3/ 7/01		0.050
Molybdenum	mg/kg	0.334	6.29	FRITSMA	6010A	3/ 7/01	75	0.100
Nickel	mg/kg	0.416	7.83	FRITSMA	6010A	3/ 7/01	420	0.100
Potassium	mg/kg	180	3380	FRITSMA	6010A	3/ 7/01		5.00
Silver	mg/kg	1.1	20.7	FRITSMA	6010A	3/ 7/01		0.030
Sodium	mg/kg	124	2330	FRITSMA	6010A	3/ 7/01		0.100
Zinc	mg/kg	17.6	331	FRITSMA	6010A	3/ 7/01	2800	0.010
Arsenic	mg/kg	0.224	4.21	FRITSMA	As7060-Se7740	3/ 7/01	41	0.005
Selenium	mg/kg	0.007	0.132	FRITSMA	As7060-Se7740	3/ 7/01	36	0.005
Solids, Total (TS)	%	5.31		FRITSMA	160.3	3/ 1/01		0.010
Solids, Total Volatile (TVS)	%	68.1		TENHOOPEN	160.4	3/ 5/01		1.00

Robert Erickson, Laboratory Director

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

6735.1

Allegan

Feb. 28, 2001

K. Kuk

2/28/01

Kari Kenyon 2/28/01 12:30

2/28/01 200

3/1/01

NOTICE AND NECESSARY INFORMATION (NANI) / CERTIFICATIONS

This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [§503.12(f)], and pathogen reduction certification requirements [§503.32]. Please note, however, that if the biosolids meet the exceptional quality criteria, then the notification requirements do not apply. This form can be used by preparers of biosolids to transmit information to land appliers and also by land appliers to transmit information to land owners or lease holders.

Facility and Biosolids Type: City of Allegan WWTP – Class B Biosolids
Monitoring Period: From 03/12/01 To 06/12/01

To be Completed by PREPARERS of Biosolids:

A. Please provide pollutant concentrations

Name	Concentration (mg/kg) Dry Weight	Pollutant Concentrations (Table 3, 40 CFR 503.13) (monthly average)	Ceiling Concentrations* (Table 1, 40 CFR 503.13) (daily maximum)
Arsenic	4 21	41 mg/kg	75 mg/kg
Cadmium	.377	39 mg/kg	85 mg/kg
Copper	340	1500 mg/kg	4300 mg/kg
Lead	23 1	300 mg/kg	840 mg/kg
Mercury	2.82	17 mg/kg	57 mg/kg
Molybdenum	6.29	N/A**	75 mg/kg
Nickel	7 83	420 mg/kg	420 mg/kg
Selenium	132	100 mg/kg	100 mg/kg
Zinc	331	2800 mg/kg	7500 mg/kg
Nitrogen Concentration	61700	N/A	N/A

* Biosolids may not be land applied if any pollutant exceeds these values.
** EPA has temporarily removed molybdenum limits from Table 2, Table 3, and Table 4, and dropped chromium.

B Pathogen Reduction (40 CFR 503.32) -- Please indicate the level achieved ___ Class A ✓ Class B
Alternative: 1 (Anaerobic Digestion)
I certify under penalty of law, that the information that will be used to determine compliance with the Class B pathogen requirements in §503.32(b) and R 323.2414(3) has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment

C Vector Attraction Reduction (40 CFR 503.33) -- Please indicate the option performed (1-8), if any _____
___I certify under penalty of law, that the information that will be used to determine compliance with the vector attraction reduction requirements in §503.33(b)(1) and R323.2415(4)(a) has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment

✓ No vector attraction reduction options were performed

D. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or these persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name and Official Title *(type or print)*	B. Area Code and Telephone Number
Dwight Fargo, Superintendent	616 686 1117
C. Signature	D. Date Signed 3/14/01

Delivery Group #2001:0000735

Customer Name: Synagro Midwest
Address: Michigan Office - Western
P.O. Box 292
Sparta, MI 49345

Project #: 990300L 3/12/01
Contact Name: Ms Kari Konyndyk
: P.O. Box 292

: Sparta, MI 49345

Project Name: Land Application

Sampled By : Client

Lab Log #: 2001:0000735-1 Client Sample ID: Allegan–1st Quarter Sample Received: 2/28/01 Sample Date: 2/28/01

Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				FRITSMA		3/ 8/01		
Prep: Metals Digestion				FRITSMA		3/ 2/01		
Prep: TKN Digestion/Distillation				SCHMITT		3/ 1/01		
Density	lb/gal	8.63		HOGH	SM2710F	3/ 8/01		1.00
Mercury	mg/kg	0.150	2.82	FRITSMA	7470	3/ 9/01	17	0.020
Nitrogen, Ammonia as N	mg/kg	419	7890	SCHMITT	350.3	2/28/01		1.00
Nitrogen, Total	mg/kg	3270	61700	FRITSMA	Calculation	3/ 2/01		1.00
Nitrogen, Total Available	lb/ton	1.89	35.59	FRITSMA	Calculation	3/ 2/01		0.1000
Nitrogen, Total Kjeldahl	mg/kg	3279	61750	SCHMITT	351.4	3/ 1/01		0.1000
pH	S.U.	6.93		TENHOOPEN	150.1	2/28/01		1.00
Phosphate, Total as P	mg/kg	3629	68350	TENHOOPEN	365.3	3/ 1/01		5.000
Chloride	mg/kg	225	4230	FRITSMA	9056	3/ 1/01		1.00
Nitrogen, Nitrate as N	mg/kg	2.42	45.6	FRITSMA	9056	3/ 1/01		1.00
Sulfate	mg/kg	3.9	73.4	FRITSMA	9056	3/ 1/01		1.00
Barium	mg/kg	18.0	338	FRITSMA	6010A	3/ 7/01		0.010
Cadmium	mg/kg	<0.020	<0.377	FRITSMA	6010A	3/ 7/01	39	0.020
Calcium	mg/kg	583	10900	FRITSMA	6010A	3/ 7/01		0.020
Chromium	mg/kg	1.6	30.1	FRITSMA	6010A	3/ 7/01		0.040
Copper	mg/kg	18.1	340	FRITSMA	6010A	3/ 7/01	1500	0.020
Lead	mg/kg	1.23	23.1	FRITSMA	6010A	3/ 7/01	300	0.150
Magnesium	mg/kg	211	3970	FRITSMA	6010A	3/ 7/01		0.050
Molybdenum	mg/kg	0.334	6.29	FRITSMA	6010A	3/ 7/01	75	0.100
Nickel	mg/kg	0.416	7.83	FRITSMA	6010A	3/ 7/01	420	0.100
Potassium	mg/kg	180	3380	FRITSMA	6010A	3/ 7/01		5.00
Silver	mg/kg	1.1	20.7	FRITSMA	6010A	3/ 7/01		0.030
Sodium	mg/kg	124	2330	FRITSMA	6010A	3/ 7/01		0.100
Zinc	mg/kg	17.6	331	FRITSMA	6010A	3/ 7/01	2800	0.010
Arsenic	mg/kg	0.224	4.21	FRITSMA	As7060-Se7740	3/ 7/01	41	0.005
Selenium	mg/kg	0.007	0.132	FRITSMA	As7060-Se7740	3/ 7/01	36	0.005
Solids, Total (TS)	%	5.31		FRITSMA	160.3	3/ 1/01		0.010
Solids, Total Volatile (TVS)	%	66.1		TENHOOPEN	160.4	3/ 5/01		1.00

Robert Erickson, Laboratory Director

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

2001:0000735

Prein&Newhof
Engineers • Surveyors • Environmental & Soils Laboratory
3260 Evergreen NE Grand Rapids, MI 49525 Telephone 616-364-7600 Fax 616-364-4922 lab@preinnewhof.com

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

ALLEGAN WWTP
OCTOBER 2000

FIELD INFORMATION	
M-DEQ#:	01N13W18-VM06
FIELD NUMBER:	TR18-VM06
OWNER:	VIRGIL MERCHANT
FARMER:	VIRGIL MERCHANT
# OF SEASONS UTILIZED TO DATE	2
ACRES USED THIS MONTH	18
TOTAL ACRES IN SITE	18
LONGITUDE	85 52 56
LATITUDE	42.28.26

SOIL AND CROP INFORMATION	
Soil Sample Date	2000
Crop to be Fertilized	SOYBEANS
Subsequent Crop	CORN
BRAY: PPM	98
Crop Yield Goal:	150
Nitrogren Rec.	180
K: PPM	63
CEC: ME/100G	3.1
Ph: S.U.	5.2

BIOSOLIDS APPLIED

Biosolids Sample Date: 9-7-00 EAST & WEST AVG

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/21/00	104,000	4.26		1.1670
10/21/00	144,000	4.26		1.4774
10/25/00	32,000	4.26		0.3283
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000

NUTRIENTS APPLIED

	Analytical Results (%)	Application This Month (lbs/acre)	Application This Year (lbs/acre)
TKN	6.4805	1	X
NH4	2.245	1	X
NO3	0.002355	1	X
AVAN	X	177.7863	177.7863
Potassium	0.342	19.6490	19.6490
Phosphorus	4.3135	247.8244	247.8244

GALLONS/DRY TON FOR OCTOBER 2000	
Total Gallons (Month)	280,000
Total Dry Tons Per Acre (Month)	2.8727

GALLONS/DRY TON YEAR TO DATE	
Total Gallons (Year)	280,000
Total Dry Tons Per Acre (Year)	2.8727

		Lead	Zinc	Copper	Nickel	Cadmium	Chromium	Arsenic	Mercury	Molybdenum	Selenium
Analytical Results	(mg/kg)	43.25	542	490.5	4.52	0.4715	44.5	0.5895	2.7	4.08	0.118
Application This Month	(lbs/acre)	0.2485	3.1140	2.8181	0.0260	0.0027	0.2557	0.0034	0.0155	0.0234	0.0007
Application This Year	(lbs/acre)	0.2485	3.1140	2.8181	0.0260	0.0027	0.2557	0.0034	0.0155	0.0234	0.0007
Lifetime to Date	(lbs/acre)	1.3485	11.7340	12.1381	0.2360	0.0427	0.8857	0.1134	0.0355	0.1734	0.0107
Table 2	(lbs/acre)	267	2492	1335	374	35	[redacted]	37	15	[redacted]	89

(Analytical*Dry Ton Per Acre*.002)

Signature of WWTP Superintendent

HISTORY OF PROPERTY

AS OF OCTOBER 2000

FIELD # TR18-VM06
MDEQ #: 01N13W18-VM06
FARMER VIRGIL MERCHANT
FACILITY ALLEGAN WWTP

		Month	Prior This Year	Total This Year	Prior to 12-31-99	Accum History
Total Avlbl Nitrogen	lb/acre	177 7863		177 7863		
Phosphorus	lb/acre	247 8244		247 8244		
Potassium	lb/acre	19 6490		19.6490		
[illegible]	[illegible]	0 2485		0 2485	1 1000	1 345[illegible]
[illegible]	lb/acre	3 1140		3 1140	8 6200	11 734[illegible]
Copper	lb/acre	2 8181		2.8181	9.3200	12.138[illegible]
Nickel	lb/acre	0.0260		0.0260	0.2400	0.266[illegible]
Cadmium	lb/acre	0.0027		0.0027	0.0400	0.042[illegible]
Chromium	lb/acre	0.2557		0.2557	0.6300	0.885[illegible]
Arsenic	lb/acre	0.0034		0.0034	0.1100	0.113[illegible]
Mercury	lb/acre	0.0155		0.0155	0.0200	0.035[illegible]
Molybdenum	lb/acre	0.0234		0.0234	0.1500	0.173[illegible]
Selenium	lb/acre	0.0007		0.0007	0.0100	0.010[illegible]

Gallons Hauled	280,000	280,000
Dry Ton Per Acre	2.8727	2.8727

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

ALLEGAN WWTP
OCTOBER 2000

FIELD INFORMATION	
MCEE D#:	01N13W18-/
FIE NUMBER	TR18-VM
R	IPC
FA ER:	VIRGIL MERC NT
# OF SEASONS UTILIZED TO DATE	3
ACRES USED THIS MONTH	19
TOTAL ACRES IN SITE	60
LONGITUDE	85:52:54
LATITUDE	42 28 33

SOIL AND CROP INFORMATION	
Subsequent Crop	CORN
BRAY PPM	37
Crop Yield Goal	150
Nitrogen Rec.	200
K PPM	20
CEC ME/100G	1.7
PH S.U.	6.1

BIOSOLIDS APPLIED				
Biosolids Sample Date	*9- 0 EAST & WEST AVG*			
		%	%	DRY TON
DATE	GALLONS	SOLID	VS	PER ACRE
10/24/00	136,000	4.26		1 3219
10/25/00	88,000	4.26		0.8553
				0.0000
				0 0000
				0 0000
				0 0000
				0 0000
				0 0000
				0 0000
				0.0000
				0.0000
				0 0000

NUTRIENTS APPLIED			
	Analytical Results (%)	Application This Month (lbs/acre)	Application This Year (lbs/acre)
TKN	6.4805	X	X
NH4	2.245	X	X
NO3	0.002355	X	X
AVAIL	X	134.7433	134.7433
Potassium	0.342	14.8919	14.8919
Phosphorus	4.3135	187.8248	187 8248

GALLONS/DRY TON FOR OCTOBER 2000	
Total Gallons (Month)	224,000
Total Dry Tons Per Acre (Month)	2.1772

GALLONS/DRY TON YEAR TO DATE	
Total Gallons (Year)	224,000
Total Dry Tons Per Acre (Year)	2.1772

		Lead	Zinc	Copper	Nickel	Cadmium	Chromium	Arsenic	Mercury	Molybdenum	Selenium	
Analytical Results	(mg/kg)	43.25	542	490.5	4.52	0.4715	44.5	0.5895	2.7	4.08	0.113	
Application This Month	(lbs/acre)	0.1883	2.3601	2.1358	0.0197	0.0021	0.1938	0.0026	0.0118	0.0178	0.0005	(Analytical*Dry Ton Per Acre*.002)
Application This Year	(lbs/acre)	0.1883	2.3601	2.1358	0.0197	0.0021	0.1938	0.0026	0.0118	0.0178	0.0005	
Lifetime to Date	(lbs/acre)	0 6392	9.6551	7 4390	0.1719	0.0177	1.6501	0.0552	0.0665	0 0639	0.0012	
Table 2	(lbs/acre)	267	2492	1335	374	35	[redacted]	37	15	[redacted]	4.83	

Signature of WWTP Superintendent

HISTORY OF PROPERTY

AS OF OCTOBER 20[illegible]

FIELD # TR18-[illegible]VM01
MDEQ #: 01N13[illegible]W18-VM01
FARMER: VIRGIL MERCHANT
FACILITY: ALLEGIANT WTP

		Month	P[illegible] This [illegible]	Total This [illegible]	[illegible]r to [illegible]-99	Accum History
Total Avlbl Nitr[illegible]en	lb/acre	134 7433		134 7433		
Phosphorus	lb acre	187 8248		187 8248		
Potassium	lb acre	14 8919		14 8919		
Lead	lb acre	0 1883		0 1883	4509	0 6392
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]1950	0 8551
[illegible]	[illegible]	2[illegible]58		[illegible]	[illegible]3032	7 4300
Nickel	lb acre	0 0197		0 0197	1522	0 1719
Cadmium	lb acre	0 0021		0 0021	[illegible]0156	0.0177
Chromium	lb acre	0.1938		0 1938	[illegible]3563	0 5501
Arsenic	lb/acre	0.0026		0.0026	[illegible]0526	0 0552
Mercury	lb/acre	0 0118		0 0118	[illegible]0547	0.0665
Molybdenum	lb/acre	0 0178		0 0178	[illegible]0461	0.0639
Selenium	lb/acre	0 0005		0 0005	[illegible]0007	0.0012

Gallons Hauled	224,000	224,000
Dry Ton Per Acre	2.1772	2.1772

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

ALLEGAN WWTP
OCTOBER 2000

FIELD INFORMATION	
M-DEQ#:	01N13W26-BK01
FIELD NUMBER:	TR26-BK01
OWNER:	BENNY KOTERAS
FARMER:	JIM SINKLER
# OF SEASONS UTILIZED TO DATE	2
ACRES USED THIS MONTH	12
TOTAL ACRES IN SITE:	67
LONGITUDE:	85:48:55
LATITUDE:	42:26:52

SOIL AND CROP INFORMATION	
Soil Sample Date:	1.12/00
Crop to be Fertilized:	SOYBEANS
Subsequent Crop	CORN
BRAY: PPM	36
Crop Yield Goal:	150
Nitrogren Rec.	165
K: PPM	117
CEC: ME/100G	5.7
Ph: S.U.	6.3

BIOSOLIDS APPLIED

Biosolids Sample Date: 9-7-00 EAST & WEST AVG

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/25/00	136,000	4.26		1.0929
10/27/00	24,000	4.26		1.3693
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000

NUTRIENTS APPLIED	Analytical Results (%)	Application This Month (lbs/acre)	Application This Year (lbs/acre)
TKN	6.4805	<	X
NH4	2.245	<	X
NO3	0.002355	<	X
AVAN	X	152.3883	152.3883
Potassium	0.342	16.8420	16.8420
Phosphorus	4.3135	212.4209	212.4209

GALLONS/DRY TON FOR OCTOBER 2000	
Total Gallons (Month)	160,000
Total Dry Tons Per Acre (Month)	2.4623

GALLONS/DRY TON YEAR TO DATE	
Total Gallons (Year)	160,000
Total Dry Tons Per Acre (Year)	2.4623

		Lead	Zinc	Copper	Nickel	Cadmium	Chromium	Arsenic	Mercury	Molybdenum	Selenium
Analytical Results	(mg/kg)	43.25	542	490.5	4.52	0.4715	44.5	0.5895	2.7	4.08	0.118
Application This Month	(lbs/acre)	0.2130	2.6691	2.4155	0.0223	0.0023	0.2191	0.0029	0.0133	0.0201	0.0006
Application This Year	(lbs/acre)	0.2130	2.6691	2.4155	0.0223	0.0023	0.2191	0.0029	0.0133	0.0201	0.0006
Lifetime to Date	(lbs/acre)	0.2366	4.3186	4.2737	0.0280	0.0054	0.3391	0.0089	0.0212	0.0358	0.0014
Table 2	(lbs/acre)	267	2492	1335	374	35	[redacted]	37	15	[redacted]	89

(Analytical*Dry Ton Per Acre*.002)

Signature of WWTP Superintendent

HISTORY OF PROPERTY

AS OF: OCTOBER 2000

FIELD # TR26-BK01
MDEQ #: 01N13W26-BK01
FARMER. BENNY KOTERAS
FACILITY ALLEGAN WWTP

		Month	Prior This Year	Total This Year	Prior to 07/01/00	Accum. History
Total Avlbl. Nitrogen	lb/acre	152.3883		152.3883		
Phosphorus	lb/acre	212.4209		212.4209		
Potassium	lb/acre	16.8420		16.8420		
Lead	lb acre	0.2130		0.2130	0.0236	0.2366
Zinc	lb/acre	2.6691		2.6691	1.6495	4.3186
Copper	lb acre	2.4155		2.4155	1.8582	4.2737
Nickel	lb acre	0.0223		0.0223	0.0157	0.0380
Cadmium	lb acre	0.0023		0.0023	0.0031	0.0054
Chromium	lb acre	0.2191		0.2191	0.1200	0.3391
Arsenic	lb acre	0.0029		0.0029	0.0060	0.0089
Mercury	lb acre	0.0133		0.0133	0.0079	0.0212
Molybdenum	lb acre	0.0201		0.0201	0.0157	0.0358
Selenium	lb acre	0.0006		0.0006	0.0008	0.0014

Gallons Hauled	160,000	160,000
Dry Ton Per Acre	2.4623	2.4623

Biosolids Annual Report for
October 1, 1999 - September 30, 2000
Allegan WWTP
MI0020532

Section I - General Facility Information

Physical Address	350 NORTH ST. ~~112 Locust Street~~	Mailing Address	112 Locust St.
	Allegan		Allegan
	MI 49010-		MI 49010
Latitude	42.525	Longitude	85.850
County	Allegan		
Superintendent	Dwight Fargo		
Phone Number	(616) 673-5511	Fax Number	(616) 673-7323
Email Address			

Plant Type	ACTIVATED SLUDGE EXTENDED AERATION		
Permit Issued	OCT 1995	Permit Expiration	OCT 2000
Flow Rate (MGD)	.750		
IPP?	YES	Indian Lands?	NO
Out of State Biosolids?	NO		

Contract Applier/Hauler Information

Synagro Midwest
323 Martindale Street
Sparta, Michigan 49345
Lena L. Torbet, Technical Manager
(800) 575-8343 extension 105

Biosolids Annual Report for
October 1, 1999 - September 30, 2000

Allegan WWTP

Section II - Final Use/Disposal Practices

1. Land Application (total)	194.3334	dt			
Bulk Biosolids:		dt	Derived Materials		
Agricultural Land	194.3334	dt	Agricultural Land	0	dt
Forest	0	dt	Forest	0	dt
Public Contact Site	0	dt	Public Contact Site	0	dt
Reclamation Site	0	dt	Reclamation Site	0	dt
Sold or Given Away	0	dt	Sold or Given Away	0	dt
Lawn or Garden	0	dt	Lawn or Garden	0	dt
2. Surface Disposal (total)	0	dt	3. Landfill (total)	0	dt
With Liner and LCS	0	dt	Landfill Disposal	0	dt
Without Liner and LCS	0	dt	Landfill Cover	0	dt
			Landfill Name		
4. Incineration	0	dt			
5. Transported to Another Facility	0	dt	6. Received From Another Facility	0	dt
Name			Name		
Address			Address		
NPDES			NPDES		
Phone			Phone		
7. Other	0	dt	8. Stored	0	dt

9. Certifications: Please attach all required certification statements.

Pathogen Certification	Yes	Yes, No, or Not Applicable
Vector/Attraction Certification	Yes	Yes, No, or Not Applicable
Management Practice Certification	Yes	Yes, No, or Not Applicable
Landfill Certification	N/A	Yes, No, or Not Applicable

Biosolids Annual Report for
October 1, 1999 - September 30, 2000

ALLEGAN WWTP

Section IV - Monitoring Data Summary

Parameter	Average Annual Concentration	Maximum Annual Concentration	Units	# of Analyses	Method Detection Limit	Test Method	Sample Type
Inorganics							
Solids	3.69	4.52	%	3	0.010	160.3	Grab
Arsenic	0.89	1.49	mg/kg	3	0.005	7060	Grab
Cadmium	0.58	0.78	mg/kg	3	0.020	6010	Grab
Copper	481.33	508.00	mg/kg	3	0.020	6010	Grab
Lead	30.79	43.60	mg/kg	3	0.150	6010	Grab
Mercury	2.45	3.65	mg/kg	3	0.020	7470	Grab
Molybdenum	4.03	5.06	mg/kg	3	0.100	6010	Grab
Nickel	4.32	4.71	mg/kg	3	0.100	6010	Grab
Selenium	0.14	0.19	mg/kg	3	0.005	7740	Grab
Zinc	498.33	566.00	mg/kg	3	0.010	6010	Grab
Nutrients							
TKN	59,670.00	65,730.00	mg/kg	3	0.100	351.4	Grab
Ammonium Nitrogen	19,633.33	23,500.00	mg/kg	3	1.000	350.3	Grab
Phosphorus	46,590.00	53,500.00	mg/kg	3	5.000	365.3	Grab
Potassium	4,220.00	5,820.00	mg/kg	3	5.000	6010	Grab

ALLEGAN WWTP
LAB ANALYSIS - 2000

	3/2/00 1ST. QTR.	9/7/00 EAST	9/7/00 WEST	Average	Maximum
DENSITY	8.45	8.61	8.74	8.60	8.74
MERCURY	1.96	1.75	3.65	2.45	3.65
NITROGEN, AMMONIA	14000	21400	23500	19633.33	23500.00
NITROGEN, TOTAL	49400	63800	65700	59633.33	65700.00
NITROGEN, TOTAL AVAILABLE	28.6	37.09	38.05	34.58	38.05
NITROGEN, TOTAL KJELDAHL	49400	63880	65730	59670.00	65730.00
PHOSPHATE	53500	42450	43820	46590.00	53500.00
CHLORIDE	10400	5910	5350	7220.00	10400.00
NITROGEN, NITRATE	39.2	25	22.1	28.77	39.20
SULFATE	78.4	104	22.1	68.17	104.00
BARIUM	439	556	546	513.67	556.00
CADMIUM	0.784	0.501	0.442	0.58	0.78
CALCIUM	12400	19700	17400	16500.00	19700.00
CHROMIUM	29.9	44.8	44.2	39.63	44.80
COPPER	463	473	508	481.33	508.00
LEAD	5.88	43.6	42.9	30.79	43.60
MAGNESIUM	5730	6660	6060	6150.00	6660.00
MOLYBDENUM	3.92	3.1	5.06	4.03	5.06
NICKEL	3.92	4.71	4.33	4.32	4.71
POTASSIUM	5820	3500	3340	4220.00	5820.00
SILVER	39.2	43.6	40.4	41.07	43.60
SODIUM	4870	3600	3030	3833.33	4870.00
ZINC	411	518	566	498.33	566.00
ARSENIC	1.49	0.626	0.553	0.89	1.49
SELENIUM	0.188	0.125	0.111	0.14	0.19
SOLIDS, TOTAL	2.55	3.99	4.52	3.69	4.52

Deliv ' oup #2000:0000559
Custome: ame: Synagro Midwest
Address: 323 Martindale Street

Sparta, MI 49345

Project Name: Land Application

Project #: 990300L
Contact Name: Mr. Jim Rosendall
: 323 Martindale Street

: Sparta, MI 49345

Sampled By : Client

3/ 9/00

Prein&Newhof
Engineers ▪ Surveyors ▪ Environmental & Soils Laboratory

3260 Evergreen NE Grand Rapids, MI 49525 Telephone 616-364-7600 Fax 616-364-4222 lab@preinnewhof.com

Lab Log #: 2000:0000559-1 **Client Sample ID:** City of Allegan--1st Quarter Sample Received: 3/ 3/00 Sample Date: 3/ 2/00

Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				BYLSMA		3/ 6/00		
Prep: Metals Digestion				BYLSMA		3/ 6/00		
Prep: TKN Digestion/Distillation				SCHMITT		3/ 6/00		
Density	lb/gal	8.45		BYLSMA	SM2710F	3/ 6/00		1.00
Mercury	mg/kg	0.050	1.96	BYLSMA	7470	3/ 7/00	17	0.020
Nitrogen, Ammonia as N	mg/kg	360	14000	SCHMITT	350.3	3/ 6/00		1.0
Nitrogen, Total	mg/kg	1260	49400	HOCH	Calculation	3/ 6/00		1.00
Nitrogen, Total Available	lb/ton	0.730	28.6	HOCH	Calculation	3/ 6/00		0.100
Nitrogen, Total Kjeldahl	mg/kg	1260	49400	SCHMITT	351.4	3/ 6/00		0.100
pH	S.U.	6.97		SCHMITT	150.1	3/ 6/00		1.00
Phosphate, Total as P	mg/kg	1360	53500	DEWITT	365.3	3/ 6/00		5.00
Chloride	mg/kg	266	10400	HOCH	9056	3/ 4/00		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<39.2	HOCH	9056	3/ 4/00		1.00
Sulfate	mg/kg	2.00	78.4	HOCH	9056	3/ 4/00		1.00
Barium	mg/kg	11.2	439	BYLSMA	200.7/6010A	3/ 6/00		0.010
Cadmium	mg/kg	<0.020	<0.784	BYLSMA	200.7/6010A	3/ 6/00	39	0.020
Calcium	mg/kg	317	12400	BYLSMA	200.7/6010A	3/ 6/00		0.020
Chromium	mg/kg	0.764	29.9	BYLSMA	200.7/6010A	3/ 6/00		0.040
Copper	mg/kg	11.8	463	BYLSMA	200.7/6010A	3/ 6/00	1500	0.020
Lead	mg/kg	<0.150	<5.88	BYLSMA	200.7/6010A	3/ 6/00	300	0.150
Magnesium	mg/kg	146	5730	BYLSMA	200.7/6010A	3/ 6/00		0.050
Molybdenum	mg/kg	<0.100	<3.92	BYLSMA	200.7/6010A	3/ 6/00	75	0.100
Nickel	mg/kg	<0.100	<3.92	BYLSMA	200.7/6010A	3/ 6/00	420	0.100
Potassium	mg/kg	148	5820	BYLSMA	200.7/6010A	3/ 6/00		5.00
Silver	mg/kg	1	39.2	BYLSMA	200.7/6010A	3/ 6/00		0.030
Sodium	mg/kg	124	4870	BYLSMA	200.7/6010A	3/ 6/00		0.100
Zinc	mg/kg	10.4	411	BYLSMA	200.7/6010A	3/ 6/00	2800	0.010
Arsenic	mg/kg	0.038	1.49	BYLSMA	7000 Series	3/ 7/00	41	0.005
Selenium	mg/kg	0.005	0.188	BYLSMA	7000 Series	3/ 7/00	36	0.005
Solids, Total (TS)	%	2.55		HOCH	160.3	3/ 3/00		0.010
Solids, Total Volatile (TVS)	%	64.6		HOCH	160.4	3/ 7/00		1.00

Robert Erickson, Laboratory Director

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

2000 0000559

6559-1

SYNAGRO OF MICHIGAN
Chain of Custody
Biosolids Analysis

Location: City of Allegan

Sample Date: 3-2-00

Received For Laboratory

Name K. Fuller

Date/Time 3/3/00

Keep bottom copy for your records.

990300L

Quarterly Sludge Analysis
Land Application Parameters

1st Quarter ☒

2nd Quarter ☐

3rd Quarter ☐

4th Quarter ☐

pH	Sulfate		
% solids	Potassium	Mercury	
volatile solids	Arsenic	Molybdenum	
Kjeldahl Nitrogen	Barium	Nickel	Total Nitrogen
Ammonia Nitrogen	Cadmium	Silver	T. Avail Nitrogen
Nitrate Nitrogen	Chromium	Selenium	
T. Phosphorous	Copper	Zinc	
Chloride	Lead	Calcium	
Density	Magnesium	Sodium	

Additional Analyses:

Fecal Coliform ☐

TC LP (as totals) ☐

Total Organics ☐

Full Perm Renewal/Approval ☐

Other: _____

Relinquished By: D. FARGO Date/Time 3/2/00 9:00

Received By: C. Robbins Date/Time 3/3/00 11[10]

Relinquished By: C. Robbins Date/Time 3/3/00

Received By: Kris E Foster Date/Time 3/3/00 13[18]

Relinquished By: Kris E Foster Date/Time 3/3/00 13[50]

Received By: _____ Date/Time _____

LAB USE

Data Relinquished By: Name/Date/Time 3/9/00 800

Deli· oup #2000:0002981

Custo.... ..ame: Synagro Midwest

Address: 323 Martindale Street

Sparta, MI 49345

Project Name: Land Application

Project #: 990300L

Contact Name: Mr. Jim Rosendall

: 323 Martindale Street

: Sparta, MI 49345

Sampled By : Client

9/19/0(

Prein&Newhof
Engineers▪Surveyors▪Environmental & Soils Laboratory

3260 Evergreen NE Grand Rapids, MI 49525 Telephone 616-364-7600 Fax 616-364-4222 lab@preinnewhof.com

Lab Log #: 2000:0002981-1 **Client Sample ID:** Allegan - East 3rd Qtr Sample Received: 9/ 7/00 Sample Date: 9/ 7/00

Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				BYLSMA		9/ 8/00		
Prep: Metals Digestion				BYLSMA		9/ 8/00		
Prep: TKN Digestion/Distillation				SCHMITT		9/ 8/00		
Density	lb/gal	8.61		BYLSMA	SM2710F	9/ 8/00		1.00
Mercury	mg/kg	0.070	1.75	BYLSMA	7470	9/ 8/00	17	0.020
Nitrogen, Ammonia as N	mg/kg	855	21400	SCHMITT	350.3	9/ 8/00		1.00
Nitrogen, Total	mg/kg	2540	63800	HOCH	Calculation	9/11/00		1.00
Nitrogen, Total Available	lb/ton	1.48	37.09	HOCH	Calculation	9/11/00		0.1000
Nitrogen, Total Kjeldahl	mg/kg	2549	63880	SCHMITT	351.4	9/ 8/00		0.1000
pH	S.U.	7.48		HOCH	150.1	9/ 8/00		1.00
Phosphate, Total as P	mg/kg	1694	42450	MALBURG	365.3	9/12/00		5.000
Chloride	mg/kg	236	5910	HOCH	9056	9/ 8/00		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<25	HOCH	9056	9/ 8/00		1.00
Sulfate	mg/kg	4.16	104	HOCH	9056	9/ 8/00		1.00
Barium	mg/kg	22.2	556	BYLSMA	200.7/6010A	9/11/00		0.010
Cadmium	mg/kg	<0.020	<0.501	BYLSMA	200.7/6010A	9/11/00	39	0.020
Calcium	mg/kg	788	19700	BYLSMA	200.7/6010A	9/11/00		0.020
Chromium	mg/kg	1.79	44.8	BYLSMA	200.7/6010A	9/11/00		0.040
Copper	mg/kg	18.9	473	BYLSMA	200.7/6010A	9/11/00	1500	0.020
Lead	mg/kg	1.74	43.6	BYLSMA	200.7/6010A	9/11/00	300	0.150
Magnesium	mg/kg	266	6660	BYLSMA	200.7/6010A	9/11/00		0.050
Molybdenum	mg/kg	0.124	3.1	BYLSMA	200.7/6010A	9/11/00	75	0.100
Nickel	mg/kg	0.188	4.71	BYLSMA	200.7/6010A	9/11/00	420	0.100
Potassium	mg/kg	140	3500	BYLSMA	200.7/6010A	9/11/00		5.00
Silver	mg/kg	1.74	43.6	BYLSMA	200.7/6010A	9/11/00		0.030
Sodium	mg/kg	144	3600	BYLSMA	200.7/6010A	9/11/00		0.100
Zinc	mg/kg	20.7	518	BYLSMA	200.7/6010A	9/11/00	2800	0.010
Arsenic	mg/kg	<0.025	<0.626	BYLSMA	As7060-Se7740	9/11/00	41	0 025
Selenium	mg/kg	<0.005	<0.125	BYLSMA	As7060-Se7740	9/11/00	36	0.005
Solids, Total (TS)	%	3.99		SCHMITT	160.3	9/ 8/00		0.010
Solids, Total Volatile (TVS)	%	58.7		MALBURG	160.4	9/12/00		1.00

Robert Erickson, Laboratory Director

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

Deli· roup #2000:0002982

Custo.... ame: Synagro Midwest
Address: 323 Martindale Street

Sparta, MI 49345

Project Name: Land Application

Project #: 990300L

Contact Name: Mr. Jim Rosendall
: 323 Martindale Street

: Sparta, MI 49345

Sampled By : Client

9/19/00

Prein&Newhof
Engineers▪Surveyors▪Environmental&Soils Laboratory
3260 Evergreen NE Grand Rapids, MI 49525 Telephone 616-364-7600 Fax 616-364-4222 lab@preinnewhof.com

Lab Log #: 2000:0002982-1 **Client Sample ID:** Allegan - West 3rd Qtr Sample Received: 9/ 7/00 Sample Date: 9/ 7/00

Parameter	Units	As Received	Dry Wt. Basis	Analyst	Method #	Analysis Date	TABLE 3 LIMITS	As Rcvd MDL
Prep: Mercury				BYLSMA		9/ 8/00		
Prep: Metals Digestion				BYLSMA		9/ 8/00		
Prep: TKN Digestion/Distillation				SCHMITT		9/ 8/00		
Density	lb/gal	8.74		BYLSMA	SM2710F	9/ 8/00		1.00
Mercury	mg/kg	0.165	3.65	BYLSMA	7470	9/ 8/00	17	0.020
Nitrogen, Ammonia as N	mg/kg	1060	23500	SCHMITT	350.3	9/ 8/00		1.00
Nitrogen, Total	mg/kg	2970	65700	HOCH	Calculation	9/11/00		1.00
Nitrogen, Total Available	lb/ton	1.72	38.05	HOCH	Calculation	9/11/00		0.1000
Nitrogen, Total Kjeldahl	mg/kg	2971	65730	SCHMITT	351.4	9/ 8/00		0.1000
pH	S.U.	7.46		HOCH	150.1	9/ 8/00		1.00
Phosphate, Total as P	mg/kg	1981	43820	MALBURG	365.3	9/12/00		5.000
Chloride	mg/kg	242	5350	HOCH	9056	9/ 8/00		1.00
Nitrogen, Nitrate as N	mg/kg	<1.00	<22.1	HOCH	9056	9/ 8/00		1.00
Sulfate	mg/kg	<1.00	<22.1	HOCH	9056	9/ 8/00		1.00
Barium	mg/kg	24.7	546	BYLSMA	200.7/6010A	9/11/00		0.010
Cadmium	mg/kg	<0.020	<0.442	BYLSMA	200.7/6010A	9/11/00	39	0.020
Calcium	mg/kg	790	17400	BYLSMA	200.7/6010A	9/11/00		0.020
Chromium	mg/kg	2.00	44.2	BYLSMA	200.7/6010A	9/11/00		0.040
Copper	mg/kg	23.0	508	BYLSMA	200.7/6010A	9/11/00	1500	0.020
Lead	mg/kg	1.94	42.9	BYLSMA	200.7/6010A	9/11/00	300	0.150
Magnesium	mg/kg	274	6060	BYLSMA	200.7/6010A	9/11/00		0.050
Molybdenum	mg/kg	0.229	5.06	BYLSMA	200.7/6010A	9/11/00	75	0.100
Nickel	mg/kg	0.196	4.33	BYLSMA	200.7/6010A	9/11/00	420	0.100
Potassium	mg/kg	151	3340	BYLSMA	200.7/6010A	9/11/00		5.00
Silver	mg/kg	1.83	40.4	BYLSMA	200.7/6010A	9/11/00		0.030
Sodium	mg/kg	137	3030	BYLSMA	200.7/6010A	9/11/00		0.100
Zinc	mg/kg	25.6	566	BYLSMA	200.7/6010A	9/11/00	2800	0.010
Arsenic	mg/kg	<0.025	<0.553	BYLSMA	As7060-Se7740	9/11/00	41	0.025
Selenium	mg/kg	<0.005	<0.111	BYLSMA	As7060-Se7740	9/11/00	36	0.005
Solids, Total (TS)	%	4.52		SCHMITT	160.3	9/ 8/00		0.010
Solids, Total Volatile (TVS)	%	57.7		MALBURG	160.4	9/12/00		1.00

Robert Erickson, Laboratory Director

Table 3 "High Quality Pollutant Concentration Limits" (monthly averages)

2000 0002982

Synagro Midwest (Michigan) - Land List

Allegan

OWNER LAST *OWNER FIRST*	*FARMER LAST* *FARMER FIRST*	*MDEQ* *SYNAGRO*	*TOWNSHIP* *ACRE*	*LATITUDE* *LONGITUDE*	*DATE*	*GALLONS*	*DRY TON/ACRE*	*ACRES USED*	*TOTAL DRY TON*	*CPLR*
Doug Brown	Doug Brown	01N13W20-DB01 TR20-DB01	Trowbridge 7	42:27:44 85:51:35						☐
Doug Brown	Doug Brown	01N13W20-DB02 TR20-DB02	Trowbridge 60	42:27:40 85:51:42						☐
Jim Chestnut	Jim Chestnut	01N13W20-JC05 TR20-JC05	Trowbridge 13	42:27:47 85:52:27	10/25/99	169,000	2.1772	13	28.3036	☐
Jim Chestnut	Jim Chestnut	01N13W20-JC09 TR20-JC09	Trowbridge 11	42:27:30 85:51:57						☐
Jim Chestnut	Jim Chestnut	01N13W20-JC06 TR20-JC06	Trowbridge 34	42:27:58 85:52:10	10/25/99	104,000	1.9353	9	17.4177	☐
Jim Chestnut	Jim Chestnut	01N13W20-JC04 TR20-JC04	Trowbridge 21	42:27:17 85:51:53						☐
Jim Chestnut	Jim Chestnut	01N13W20-JC03 TR20-JC03	Trowbridge 21	42:27:18 85:52:41						☐
Jim Chestnut	Jim Chestnut	01N13W20-JC01 TR20-JC01	Trowbridge 17	42:27:20 85:52:29	10/27/99	248,000	2.4432	17	41.5344	☐
Jim Chestnut	Jim Chestnut	01N13W20-JC08 TR20-JC08	Trowbridge 15	42:27:63 85:52:66						☐
Jim Chestnut	Jim Chestnut	01N13W20-JC02 TR20-JC02	Trowbridge 19	42:27:18 85:52:14	10/29/00	208,000	1.8335	19	34.8365	☐

OWNER LAST OWNER FIRST	FARMER LAST FARMER FIRST	MDEQ SYNAGRO	TOWNSHIP ACRE	LATITUDE LONGITUDE	DATE	GALLONS	DRY TON/ACRE	ACRES USED	TOTAL DRY TON	CPLR
Don Cook	Don Cook	02N12W33-DC01 WA33-DC01	Watson 72	42:31:14 85:43:33						☐
Don Cook	Don Cook	02N12W19-DC01 WA19-DC01	Watson 110	42:32:30 85:46:49						☐
Don Cook	Don Cook	03N12W31-DC01 HO31-DC01	Hopkins 70	42:35:45 85:46:17						☐
Wayne Curtiss	Wayne Curtiss	02N12W31-WC01 WA31-WC01	Watson 80	42:30:41 85:46:24						☐
Jacqueline Drobny	Jim Chestnut	01S13W06-JD01 PG06-JD01	Pine Grove 18	42:25:19 85:52:25						☐
Ken Heckman	Ken Heckman	02N13W13-KH01 AL13-KH01	Allegan 51	42:33:13 85:47:51						☐
Ken Heckman	Ken Heckman	02N13W36-KH01 AL36-KH01	Allegan 96	42:30:52 85:47:36						☐
Donald Jorgensen	Donald Jorgensen	01N14W28-DJ01 CH28-DJ01	Cheshire 140	42:26:24 85:57:43						☐
Debra King	Butch Smith	01N14W31-DK01 CH31-DK01	Cheshire 9	42:25:11 85:59:41						☐
Benny Koteras	Jim Sinkler	01N13W26-BK01 TR26-BK01	Trowbridge 67	42:26:52 85:48:55	5/3/00	407,100	2.0067	36	72.2412	☐
Virgil Merchant	Virgil Merchant	01N13W07-VM05 TR07-VM05	Trowbridge 13	42:28:44 85:53:47						☐
Virgil Merchant	Virgil Merchant	01N13W07-VM01 TR07-VM01	Trowbridge 7	42:29:13 85:52:49						☐
Virgil Merchant	Virgil Merchant	01N13W07-VM02 TR07-VM02	Trowbridge 14	42:29:42 85:53:50						☐

OWNER LAST OWNER FIRST	FARMER LAST FARMER FIRST	MDEQ SYNAGRO	TOWNSHIP ACRE	LATITUDE LONGITUDE	DATE	GALLONS	DRY TON/ACRE	ACRES USED	TOTAL DRY TON	CPLR
Virgil Merchant	Virgil Merchant	01N13W18-VM07 TR18-VM07	Trowbridge 12	42:28:22 85:53:10						☐
Virgil Merchant	Virgil Merchant	01N13W07-VM03 TR07-VM03	Trowbridge 13	42:28:53 85:53:31						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM08 TR18-VM08	Trowbridge 10	42:28:17 85:53:95						☐
Virgil Merchant	Virgil Merchant	01N13W07-VM04 TR07-VM04	Trowbridge 15	42:28:48 85:53:06						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM06 TR18-VM06	Trowbridge 18	42:28:26 85:52:56						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM05 TR18-VM05	Trowbridge 11	42:28:29 85:53:47						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM04 TR18-VM04	Trowbridge 12	42:28:32 85:52:47						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM03 TR18-VM03	Trowbridge 4	42:28:33 85:53:06						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM02 TR18-VM02	Trowbridge 27	42:28:34 85:52:48						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM01 TR18-VM01	Trowbridge 60	42:28:38 85:52:57						☐
Virgil Merchant	Virgil Merchant	01N13W07-VM06 TR07-VM06	Trowbridge 6	42:29:19 85:52:58						☐
Virgil Merchant	Virgil Merchant	01N13W18-VM09 TR18-VM09	Trowbridge 20	42:28:15 85:53:12						☐
Mark Schafer	Mark Schafer	03N12W33-MS01 HO33-MS01	Hopkins 20	42:36:28 85:44:21						☐

OWNER LAST OWNER FIRST	FARMER LAST FARMER FIRST	MDEQ SYNAGRO	TOWNSHIP ACRE	LATITUDE LONGITUDE	DATE	GALLONS	DRY TON/ACRE	ACRES USED	TOTAL DRY TON	CPLR
Mark Schafer	Mark Schafer	03N12W33-MS02 H033-MS02	Hopkins 16	42:35:56 85:44:23						☐
Mark Schafer	Mark Schafer	03N12W33-MS03 HO33-MS03	Hopkins 11	42:36:28 85:44:39						☐
Mark Schafer	Mark Schafer	03N12W33-MS04 HO33-MS04	Hopkins 20	42:35:56 85:44:29						☐
Jack Sipple	Jack Sipple	02N11W10-JS01 MA10-JS01	Martin 50	42:34:21 85:35:15						☐
Jack Sipple	Jack Sipple	02N11W10-JS02 MA10-JS02	Martin 40	42:34:31 85:35:32						☐
Barb Smith	Butch Smith	01N14W19-BS01 CH19-BS01	Cheshire 14	42:27:29 86:01:13						☐

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC01

M-DEQ#: 01N13W20-JC01
OF SEASONS UTILIZED TO DATE: 3
ACRES USED THIS MONTH: 17
TOTAL ACRES IN SITE 17

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/26/99	120,000	3.95		1.1822
10/27/99	128,000	3.95		1.2610
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	248,000			2.4432
YEARLY TOTAL	248,000			2.4432

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	8.4	Pb (lb/ac)	840	42
Ph: S.U.	7.5	Zn (lb/ac)	420	21
BRAY: PPM	30	Cu (lb/ac)	210	10.5
K: PPM	89	Ni (lb/ac)	84	4.2
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	160			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 260.8341

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		133.0358	133.0358	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		200.8341	200.8341	X
POTASSIUM (K)	%	0.3930			
	lb/ac		19.2038	19.2038	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1852	0.1852	0.5152
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		3.3668	3.3668	7.8268
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		3.1078	3.1078	5.5678
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0625	0.0625	0.2225
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0025	0.0025	0.0225
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.2238	0.2238	0.5438
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0032	0.0032	0.1332
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0074	0.0074	0.0274
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0170	0.0170	0.0470
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0006	0.0006	0.0106

TOTAL NITROGEN	%	5.2100
CHLORIDES	mg/kg	2960
TOTAL CALCIUM	mg/kg	1.78
TOTAL MAGNES.	mg/kg	0.594
TOTAL SODIUM	mg/kg	0.382
AVAIL. NITROGEN	lb/ton	30.1
PERCENT SOLIDS	(WET) %	3.95

BIOSOLIDS SAMPLE FROM 08/31/99

SOIL SAMPLE FROM 04/19/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC02

M-DEQ#: 01N13W20-JC02
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 19
TOTAL ACRES IN SITE 19

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/28/99	104,000	3.95		0.9167
10/29/99	104,000	3.95		0.9167
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	208,000			1.8335
YEARLY TOTAL	208,000			1.8335

CROP & SOIL DATA

			TOTAL	YEARLY
CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN			
CEC: ME/100G	17.2	Pb (lb/ac)	1720	86
Ph: S.U.	7.9	Zn (lb/ac)	860	43
BRAY: PPM	35	Cu (lb/ac)	430	21.5
K: PPM	140	Ni (lb/ac)	172	8.6
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	160			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 220.7108

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		99.8333	99.8333	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		150.7108	150.7108	X
POTASSIUM (K)	%	0.3930			
	lb/ac		14.4110	14.4110	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1390	0.1390	0.1390
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		2.5265	2.5265	2.5265
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		2.3322	2.3322	2.3322
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0469	0.0469	0.0469
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0019	0.0019	0.0019
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.1679	0.1679	0.1679
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0024	0.0024	0.0024
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0056	0.0056	0.0056
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0127	0.0127	0.0127
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0005	0.0005	0.0005
TOTAL NITROGEN	%	5.2100			
CHLORIDES	mg/kg	2960			
TOTAL CALCIUM	mg/kg	1.78			
TOTAL MAGNES.	mg/kg	0.594			
TOTAL SODIUM	mg/kg	0.382			
AVAIL. NITROGEN	lb/ton	30.1			
PERCENT SOLIDS	(WET) %	3.95			

BIOSOLIDS SAMPLE FROM
08/31/99

SOIL SAMPLE FROM
04/19/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC05

M-DEQ#: 01N13W20-JC05
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 13
TOTAL ACRES IN SITE 13

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/21/99	17,000	3.95		0.2190
10/22/99	136,000	3.95		1.7521
10/25/99	16,000	3.95		0.2061
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	169,000			2.1772
YEARLY TOTAL	169,000			2.1772

CROP & SOIL DATA

CROP TO BE FERT.:	GRASS HAY	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	GRASS HAY		TOTAL	YEARLY
CEC: ME/100G	9	Pb (lb/ac)	900	45
Ph: S.U.	7.6	Zn (lb/ac)	450	22.5
BRAY: PPM	3	Cu (lb/ac)	225	11.25
K: PPM	144	Ni (lb/ac)	90	4.5
CROP YIELD GOAL:	4	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	130			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 184.9691

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		118.5520	118.5520	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		178.9691	178.9691	X
POTASSIUM (K)	%	0.3930			
	lb/ac		17.1131	17.1131	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1650	0.1650	0.1650
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		3.0002	3.0002	3.0002
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		2.7694	2.7694	2.7694
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0557	0.0557	0.0557
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0023	0.0023	0.0023
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.1994	0.1994	0.1994
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0029	0.0029	0.0029
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0066	0.0066	0.0066
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0151	0.0151	0.0151
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0006	0.0006	0.0006
TOTAL NITROGEN	%	5.2100			
CHLORIDES	mg/kg	2960			
TOTAL CALCIUM	mg/kg	1.78			
TOTAL MAGNES.	mg/kg	0.594			
TOTAL SODIUM	mg/kg	0.382			
AVAIL. NITROGEN	lb/ton	30.1			
PERCENT SOLIDS	(WET) %	3.95			

BIOSOLIDS SAMPLE FROM 08/31/99

SOIL SAMPLE FROM 08/30/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC06

M-DEQ#: 01N13W20-JC06
OF SEASONS UTILIZED TO DATE: 5
ACRES USED THIS MONTH: 9
TOTAL ACRES IN SITE 34

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/25/99	104,000	3.95		1.9353
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	104,000			1.9353
YEARLY TOTAL	104,000			1.9353

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	8	Pb (lb/ac)	800	40
Ph: S.U.	7.1	Zn (lb/ac)	400	20
BRAY: PPM	57	Cu (lb/ac)	200	10
K: PPM	281	Ni (lb/ac)	80	4
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	160			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 273.0837

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		105.3796	105.3796	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		159.0837	159.0837	X
POTASSIUM (K)	%	0.3930			
	lb/ac		15.2117	15.2117	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1467	0.1467	0.9501
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		2.6669	2.6669	13.2172
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		2.4617	2.4617	8.7013
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0495	0.0495	0.6665
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0020	0.0020	0.0404
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.1773	0.1773	0.7902
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0025	0.0025	0.1826
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0059	0.0059	0.0467
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0134	0.0134	0.1388
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0005	0.0005	0.0113

TOTAL NITROGEN	%	5.2100
CHLORIDES	mg/kg	2960
TOTAL CALCIUM	mg/kg	1.78
TOTAL MAGNES.	mg/kg	0.594
TOTAL SODIUM	mg/kg	0.382
AVAIL. NITROGEN	lb/ton	30.1
PERCENT SOLIDS	(WET) %	3.95

BIOSOLIDS SAMPLE FROM 08/31/99

SOIL SAMPLE FROM 04/19/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

ALLEGAN WWTP
MAY 2000

FIELD INFORMATION	
M-DEQ#:	01N13W26-BK01
FIELD NUMBER:	TR26-BK01
OWNER:	BENNY KOTERAS
FARMER:	JIM SINKLER
# OF SEASONS UTILIZED TO DATE	1
ACRES USED THIS MONTH:	36
TOTAL ACRES IN SITE:	67
LONGITUDE:	85:48:924
LATITUDE:	42:26:880

SOIL AND CROP INFORMATION	
Soil Sample Date: *03/24/00*	
Crop to be Fertilized:	CORN
Subsequent Crop	SOYBEANS
BRAY: PPM	44
Crop Yield Goal:	75
Nitrogren Rec.	0
K: PPM	41
CEC: ME/100G	3.1
Ph: S.U.	5.9

BIOSOLIDS APPLIED

Biosolids Sample Date: *03/02/00*

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
05/01/00	106,200	4.2		0.5235
05/02/00	150,600	4.2		0.7423
05/03/00	150,300	4.2		0.7409
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000

NUTRIENTS APPLIED

	Analytical Results (%)	Application This Month (lbs/acre)	Application This Year (lbs/acre)
TKN	4.94	X	X
NH4	1.4	X	X
NO3	0.00392	X	X
AVAN	X	84.7583	84.7583
Potassium	0.582	23.3576	23.3576
Phosphorus	5.35	214.7130	214.7130

GALLONS/DRY TON FOR MAY 2000	
Total Gallons (Month)	407,100
Total Dry Tons Per Acre (Month)	2.0067

GALLONS/DRY TON YEAR TO DATE	
Total Gallons (Year)	407,100
Total Dry Tons Per Acre (Year)	2.0067

		Lead	Zinc	Copper	Nickel	Cadmium	Chromium	Arsenic	Mercury	Molybdenum	Selenium
Analytical Results	(mg/kg)	5.88	411	463	3.92	0.784	29.9	1.49	1.96	3.92	0.188
Application This Month	(lbs/acre)	0.0236	1.6495	1.8582	0.0157	0.0031	0.1200	0.0060	0.0079	0.0157	0.0008
Application This Year	(lbs/acre)	0.0236	1.6495	1.8582	0.0157	0.0031	0.1200	0.0060	0.0079	0.0157	0.0008
Lifetime to Date	(lbs/acre)	0.0236	1.6495	1.8582	0.0157	0.0031	0.1200	0.0060	0.0079	0.0157	0.0008
Table 2	(lbs/acre)	267	2492	1335	374	35		37	15		89

(Analytical*Dry Ton Per Acre*.002)

Signature of WWTP Superintendent

PERMITTEE NAME
NAME

ADDRESS

FACILITY
LOCATION

RESS *(Include Facility Name/Location if Different)*

NATIONAL POLLUTAN HARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*
(2 16) (17 19)

PERMIT NUMBER

SLC 2
DISCHARGE NUMBER

PRODUCTION AND USE

*** NO DISCHARGE [__] ***

Form Approved
OMB No. 2040-0004
Approval expires 05-31-98

NOTE: Read Instructions before completing this form.

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	99	01	01	TO	99	12	31
	(20-21)	(22 23)	(24-25)		(26-27)	(28 29)	(30-31)

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUANTITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
ANN. AMT SLUDGE DISP OSED BY OTHER METHOD 1 7 0 0 SLUDGE	SAMPLE MEASUREMENT			(4A)							
	PERMIT REQUIREMENT		REPORT	METRIC TON/YR				*** ***			
ANNUAL AMT OF SLUDGE INCINERATED 49018 + 0 0 SLUDGE	SAMPLE MEASUREMENT			(4A)							
	PERMIT REQUIREMENT		REPORT	METRIC TON/YR				*** ***			
ANNUAL SLUDGE PRODUC TION, TOTAL 49019 + 0 0 SLUDGE	SAMPLE MEASUREMENT			(4A)							
	PERMIT REQUIREMENT		REPORT	METRIC TON/YR				*** ***			
ANNUAL AMOUNT OF SLU DGE LAND APPLIED 49020 + 0 0 SLUDGE	SAMPLE MEASUREMENT		264.7795	(4A)							
	PERMIT REQUIREMENT		REPORT	METRIC TON/YR				*** ***			
ANNUAL AMT. SLUDGE D SPOSED SURFACE UNIT 49021 + 0 0 SLUDGE	SAMPLE MEASUREMENT			(4A)							
	PERMIT REQUIREMENT		REPORT	METRIC TON/YR				*** ***			
ANNUAL AMT SLUDGE DI SPOSED IN LANDFILL 49022 + 0 0 SLUDGE	SAMPLE MEASUREMENT			(4A)							
	PERMIT REQUIREMENT		REPORT	METRIC TON/YR				*** ***			
ANUAL AMT SLUDGE TR NSPORTED INTERSTATE 49023 + 0 0 SLUDGE	SAMPLE MEASUREMENT			(4A)							
	PERMIT REQUIREMENT		REPORT	METRIC TON/YR				*** ***			

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U S C § 1001 AND 33 U S C § 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*		AREA CODE / NUMBER	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
1- ANNUAL SLUDGE DISPOSED BY OTHER METHODS IS APPLICABLE, EXPLAIN METHOD OF DISPOSAL

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC01

M-DEQ#: 01N13W20-JC01
OF SEASONS UTILIZED TO DATE: 3
ACRES USED THIS MONTH: 17
TOTAL ACRES IN SITE 17

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/26/99	120,000	3.95		1.1822
10/27/99	128,000	3.95		1.2610
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	248,000			2.4432
YEARLY TOTAL	248,000			2.4432

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	8.4	Pb (lb/ac)	840	42
Ph: S.U.	7.5	Zn (lb/ac)	420	21
BRAY: PPM	30	Cu (lb/ac)	210	10.5
K: PPM	89	Ni (lb/ac)	84	4.2
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	160			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 260.8341

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		133.0358	133.0358	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		200.8341	200.8341	X
POTASSIUM (K)	%	0.3930			
	lb/ac		19.2038	19.2038	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1852	0.1852	0.5152
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		3.3668	3.3668	7.8268
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		3.1078	3.1078	5.5678
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0625	0.0625	0.2225
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0025	0.0025	0.0225
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.2238	0.2238	0.5438
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0032	0.0032	0.1332
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0074	0.0074	0.0274
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0170	0.0170	0.0470
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0006	0.0006	0.0106

TOTAL NITROGEN	%	5.2100
CHLORIDES	mg/kg	2960
TOTAL CALCIUM	mg/kg	1.78
TOTAL MAGNES.	mg/kg	0.594
TOTAL SODIUM	mg/kg	0.382
AVAIL. NITROGEN	lb/ton	30.1
PERCENT SOLIDS	(WET) %	3.95

BIOSOLIDS SAMPLE FROM 08/31/99

SOIL SAMPLE FROM 04/19/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC02

M-DEQ#: 01N13W20-JC02
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 19
TOTAL ACRES IN SITE 19

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/28/99	104,000	3.95		0.9167
10/29/99	104,000	3.95		0.9167
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	208,000			1.8335
YEARLY TOTAL	208,000			1.8335

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	17.2	Pb (lb/ac)	1720	86
Ph: S.U.	7.9	Zn (lb/ac)	860	43
BRAY: PPM	35	Cu (lb/ac)	430	21.5
K: PPM	140	Ni (lb/ac)	172	8.6
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	160			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS). 220.7108

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		99.8333	99.8333	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		150.7108	150.7108	X
POTASSIUM (K)	%	0.3930			
	lb/ac		14.4110	14.4110	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1390	0.1390	0.1390
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		2.5265	2.5265	2.5265
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		2.3322	2.3322	2.3322
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0469	0.0469	0.0469
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0019	0.0019	0.0019
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.1679	0.1679	0.1679
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0024	0.0024	0.0024
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0056	0.0056	0.0056
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0127	0.0127	0.0127
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0005	0.0005	0.0005

TOTAL NITROGEN	%	5.2100
CHLORIDES	mg/kg	2960
TOTAL CALCIUM	mg/kg	1.78
TOTAL MAGNES.	mg/kg	0.594
TOTAL SODIUM	mg/kg	0.382
AVAIL. NITROGEN	lb/ton	30.1
PERCENT SOLIDS	(WET) %	3.95

BIOSOLIDS SAMPLE FROM 08/31/99

SOIL SAMPLE FROM 04/19/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC05

M-DEQ#: 01N13W20-JC05
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 13
TOTAL ACRES IN SITE 13

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/21/99	17,000	3.95		0.2190
10/22/99	136,000	3.95		1.7521
10/25/99	16,000	3.95		0.2061
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	169,000			2.1772
YEARLY TOTAL	169,000			2.1772

CROP & SOIL DATA

CROP TO BE FERT.:	GRASS HAY	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	GRASS HAY		TOTAL	YEARLY
CEC: ME/100G	9	Pb (lb/ac)	900	45
Ph: S.U.	7.6	Zn (lb/ac)	450	22.5
BRAY: PPM	3	Cu (lb/ac)	225	11.25
K: PPM	144	Ni (lb/ac)	90	4.5
CROP YIELD GOAL:	4	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	130			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 184.9691

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		118.5520	118.5520	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		178.9691	178.9691	X
POTASSIUM (K)	%	0.3930			
	lb/ac		17.1131	17.1131	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1650	0.1650	0.1650
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		3.0002	3.0002	3.0002
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		2.7694	2.7694	2.7694
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0557	0.0557	0.0557
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0023	0.0023	0.0023
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.1994	0.1994	0.1994
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0029	0.0029	0.0029
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0066	0.0066	0.0066
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0151	0.0151	0.0151
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0006	0.0006	0.0006
TOTAL NITROGEN	%	5.2100			
CHLORIDES	mg/kg	2960			
TOTAL CALCIUM	mg/kg	1.78			
TOTAL MAGNES.	mg/kg	0.594			
TOTAL SODIUM	mg/kg	0.382			
AVAIL. NITROGEN	lb/ton	30.1			
PERCENT SOLIDS	(WET) %	3.95			

BIOSOLIDS SAMPLE FROM 08/31/99

SOIL SAMPLE FROM 08/30/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: OCTOBER 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC06

M-DEQ#: 01N13W20-JC06
OF SEASONS UTILIZED TO DATE: 5
ACRES USED THIS MONTH: 9
TOTAL ACRES IN SITE 34

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
10/25/99	104,000	3.95		1.9353
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	104,000			1.9353
YEARLY TOTAL	104,000			1.9353

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	8	Pb (lb/ac)	800	40
Ph: S.U.	7.1	Zn (lb/ac)	400	20
BRAY: PPM	57	Cu (lb/ac)	200	10
K: PPM	281	Ni (lb/ac)	80	4
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	160			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 273.0837

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.2000			
	NH4 %	2.1000			
	NO3%	0.0025			
	AVAN lb/ac		105.3796	105.3796	X
PHOSPHORUS (P)	%	4.1100			
	lb/ac		159.0837	159.0837	X
POTASSIUM (K)	%	0.3930			
	lb/ac		15.2117	15.2117	X
LEAD(Pb)	mg/kg	37.9000			
	lb/ac		0.1467	0.1467	0.9501
ZINC (Zn)	mg/kg	689.0000			
	lb/ac		2.6669	2.6669	13.2172
COPPER (Cu)	mg/kg	636.0000			
	lb/ac		2.4617	2.4617	8.7013
NICKEL (Ni)	mg/kg	12.8000			
	lb/ac		0.0495	0.0495	0.6665
CADMIUM (Cd)	mg/kg	0.5190			
	lb/ac		0.0020	0.0020	0.0404
CHROMIUM (Cr)	mg/kg	45.8000			
	lb/ac		0.1773	0.1773	0.7902
ARSENIC (AS)	mg/kg	0.6580			
	lb/ac		0.0025	0.0025	0.1826
MERCURY (HG)	mg/kg	1.5200			
	lb/ac		0.0059	0.0059	0.0467
MOLYBDENUM (MO	mg/kg	3.4700			
	lb/ac		0.0134	0.0134	0.1388
SELENIUM (SE)	mg/kg	0.1270			
	lb/ac		0.0005	0.0005	0.0113

TOTAL NITROGEN	%	5.2100
CHLORIDES	mg/kg	2960
TOTAL CALCIUM	mg/kg	1.78
TOTAL MAGNES.	mg/kg	0.594
TOTAL SODIUM	mg/kg	0.382
AVAIL. NITROGEN	lb/ton	30.1
PERCENT SOLIDS	(WET) %	3.95

BIOSOLIDS SAMPLE FROM *08/31/99*

SOIL SAMPLE FROM *04/19/99*

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: MAY 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR07-VM01

M-DEQ#: 01N13W07-VM01
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 4
TOTAL ACRES IN SITE 7

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
05/06/99	34,800	7.85		2.9196
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	34,800			2.9196
YEARLY TOTAL	34,800			2.9196

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	3	Pb (lb/ac)	300	15
Ph: S.U.	6.9	Zn (lb/ac)	150	7.5
BRAY: PPM	24	Cu (lb/ac)	75	3.75
K: PPM	40	Ni (lb/ac)	30	1.5
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	126			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 256.4602

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	1.6000			
	NH4 %	0.6700			
	NO3%	0.0013			
	AVAN lb/ac		50.0579	50.0579	X
PHOSPHORUS (P)	%	3.5700			
	lb/ac		208.4602	208.4602	X
POTASSIUM (K)	%	0.2100			
	lb/ac		12.2624	12.2624	X
LEAD(Pb)	mg/kg	46.2000			
	lb/ac		0.2698	0.2698	0.2698
ZINC (Zn)	mg/kg	702.0000			
	lb/ac		4.0991	4.0991	4.0991
COPPER (Cu)	mg/kg	455.0000			
	lb/ac		2.6568	2.6568	2.6568
NICKEL (Ni)	mg/kg	14.1000			
	lb/ac		0.0823	0.0823	0.0823
CADMIUM (Cd)	mg/kg	1.7600			
	lb/ac		0.0103	0.0103	0.0103
CHROMIUM (Cr)	mg/kg	24.5000			
	lb/ac		0.1431	0.1431	0.1431
ARSENIC (AS)	mg/kg	4.6400			
	lb/ac		0.0271	0.0271	0.0271
MERCURY (HG)	mg/kg	7.6400			
	lb/ac		0.0446	0.0446	0.0446
MOLYBDENUM (MO	mg/kg	5.1800			
	lb/ac		0.0302	0.0302	0.0302
SELENIUM (SE)	mg/kg	0.0640			
	lb/ac		0.0004	0.0004	0.0004

TOTAL NITROGEN	%	1.6300
CHLORIDES	mg/kg	2310
TOTAL CALCIUM	mg/kg	1.53
TOTAL MAGNES.	mg/kg	0.432
TOTAL SODIUM	mg/kg	0.177
AVAIL. NITROGEN	lb/ton	9.43
PERCENT SOLIDS	(WET) %	7.85

BIOSOLIDS SAMPLE FROM 03/26/99

SOIL SAMPLE FROM 07/17/97

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: MAY 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR07-VM02

M-DEQ#: 01N13W07-VM02
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 14
TOTAL ACRES IN SITE 14

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
05/05/99	78,300	7.85		1.8769
05/06/99	69,600	7.85		0.8698
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	147,900			2.7467
YEARLY TOTAL	147,900			2.7467

CROP & SOIL DATA

		ACCEPTABLE METAL ACCUM.	TOTAL	YEARLY
CROP TO BE FERT.:	CORN			
SUBSEQUENT CRO	CORN			
CEC: ME/100G	2.7	Pb (lb/ac)	270	13.5
Ph: S.U.	6.6	Zn (lb/ac)	135	6.75
BRAY: PPM	65	Cu (lb/ac)	67.5	3.375
K: PPM	88	Ni (lb/ac)	27	1.35
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	126			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 326.1135

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	1.6000			
	NH4 %	0.6700			
	NO3%	0.0013			
	AVAN lb/ac		47.0931	47.0931	X
PHOSPHORUS (P)	%	3.5700			
	lb/ac		196.1135	196.1135	X
POTASSIUM (K)	%	0.2100			
	lb/ac		11.5361	11.5361	X
LEAD(Pb)	mg/kg	46.2000			
	lb/ac		0.2538	0.2538	0.2538
ZINC (Zn)	mg/kg	702.0000			
	lb/ac		3.8563	3.8563	3.8563
COPPER (Cu)	mg/kg	455.0000			
	lb/ac		2.4995	2.4995	2.4995
NICKEL (Ni)	mg/kg	14.1000			
	lb/ac		0.0775	0.0775	0.0775
CADMIUM (Cd)	mg/kg	1.7600			
	lb/ac		0.0097	0.0097	0.0097
CHROMIUM (Cr)	mg/kg	24.5000			
	lb/ac		0.1346	0.1346	0.1346
ARSENIC (AS)	mg/kg	4.6400			
	lb/ac		0.0255	0.0255	0.0255
MERCURY (HG)	mg/kg	7.6400			
	lb/ac		0.0420	0.0420	0.0420
MOLYBDENUM (MO	mg/kg	5.1800			
	lb/ac		0.0285	0.0285	0.0285
SELENIUM (SE)	mg/kg	0.0640			
	lb/ac		0.0004	0.0004	0.0004

TOTAL NITROGEN	%	1.6300
CHLORIDES	mg/kg	2310
TOTAL CALCIUM	mg/kg	1.53
TOTAL MAGNES.	mg/kg	0.432
TOTAL SODIUM	mg/kg	0.177
AVAIL. NITROGEN	lb/ton	9.43
PERCENT SOLIDS	(WET) %	7.85

BIOSOLIDS SAMPLE FROM 03/26/99

SOIL SAMPLE FROM 04/15/99

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: MAY 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR07-VM03

M-DEQ#: 01N13W07-VM03
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 13
TOTAL ACRES IN SITE 13

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
05/04/99	87,000	7.85		2.2459
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	87,000			2.2459
YEARLY TOTAL	87,000			2.2459

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	1.8	Pb (lb/ac)	180	9
Ph: S.U.	5.5	Zn (lb/ac)	90	4.5
BRAY: PPM	75	Cu (lb/ac)	45	2.25
K: PPM	28	Ni (lb/ac)	18	0.9
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	126			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 310.3540

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	1.6000			
	NH4 %	0.6700			
	NO3%	0.0013			
	AVAN lb/ac		38.5061	38.5061	X
PHOSPHORUS (P)	%	3.5700			
	lb/ac		160.3540	160.3540	X
POTASSIUM (K)	%	0.2100			
	lb/ac		9.4326	9.4326	X
LEAD(Pb)	mg/kg	46.2000			
	lb/ac		0.2075	0.2075	0.2075
ZINC (Zn)	mg/kg	702.0000			
	lb/ac		3.1532	3.1532	3.1532
COPPER (Cu)	mg/kg	455.0000			
	lb/ac		2.0437	2.0437	2.0437
NICKEL (Ni)	mg/kg	14.1000			
	lb/ac		0.0633	0.0633	0.0633
CADMIUM (Cd)	mg/kg	1.7600			
	lb/ac		0.0079	0.0079	0.0079
CHROMIUM (Cr)	mg/kg	24.5000			
	lb/ac		0.1100	0.1100	0.1100
ARSENIC (AS)	mg/kg	4.6400			
	lb/ac		0.0208	0.0208	0.0208
MERCURY (HG)	mg/kg	7.6400			
	lb/ac		0.0343	0.0343	0.0343
MOLYBDENUM (MO	mg/kg	5.1800			
	lb/ac		0.0233	0.0233	0.0233
SELENIUM (SE)	mg/kg	0.0640			
	lb/ac		0.0003	0.0003	0.0003

TOTAL NITROGEN	%	1.6300
CHLORIDES	mg/kg	2310
TOTAL CALCIUM	mg/kg	1.53
TOTAL MAGNES.	mg/kg	0.432
TOTAL SODIUM	mg/kg	0.177
AVAIL. NITROGEN	lb/ton	9.43
PERCENT SOLIDS	(WET) %	7.85

BIOSOLIDS SAMPLE FROM 03/26/99

SOIL SAMPLE FROM 07/18/97

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: MAY 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR18-VM01

M-DEQ#: 01N13W18-VM01
OF SEASONS UTILIZED TO DATE: 2
ACRES USED THIS MONTH: 7
TOTAL ACRES IN SITE 15

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
05/07/99	69,600	7.85		3.3367
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	69,600			3.3367
YEARLY TOTAL	69,600			3.3367

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	4.5	Pb (lb/ac)	450	22.5
Ph: S.U.	6.8	Zn (lb/ac)	225	11.25
BRAY: PPM	29	Cu (lb/ac)	112.5	5.625
K: PPM	15	Ni (lb/ac)	45	2.25
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	126			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 296.2403

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	1.6000			
	NH4 %	0.6700			
	NO3%	0.0013			
	AVAN lb/ac		57.2090	57.2090	X
PHOSPHORUS (P)	%	3.5700			
	lb/ac		238.2403	238.2403	X
POTASSIUM (K)	%	0.2100			
	lb/ac		14.0141	14.0141	X
LEAD(Pb)	mg/kg	46.2000			
	lb/ac		0.3083	0.3083	0.4509
ZINC (Zn)	mg/kg	702.0000			
	lb/ac		4.6847	4.6847	7.4950
COPPER (Cu)	mg/kg	455.0000			
	lb/ac		3.0364	3.0364	5.3032
NICKEL (Ni)	mg/kg	14.1000			
	lb/ac		0.0941	0.0941	0.1522
CADMIUM (Cd)	mg/kg	1.7600			
	lb/ac		0.0117	0.0117	0.0156
CHROMIUM (Cr)	mg/kg	24.5000			
	lb/ac		0.1635	0.1635	0.3563
ARSENIC (AS)	mg/kg	4.6400			
	lb/ac		0.0310	0.0310	0.0526
MERCURY (HG)	mg/kg	7.6400			
	lb/ac		0.0510	0.0510	0.0547
MOLYBDENUM (MO	mg/kg	5.1800			
	lb/ac		0.0346	0.0346	0.0461
SELENIUM (SE)	mg/kg	0.0640			
	lb/ac		0.0004	0.0004	0.0007

TOTAL NITROGEN	%	1.6300
CHLORIDES	mg/kg	2310
TOTAL CALCIUM	mg/kg	1.53
TOTAL MAGNES.	mg/kg	0.432
TOTAL SODIUM	mg/kg	0.177
AVAIL. NITROGEN	lb/ton	9.43
PERCENT SOLIDS	(WET) %	7.85

BIOSOLIDS SAMPLE FROM 03/26/99

SOIL SAMPLE FROM 07/17/97

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: MAY 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR18-VM03

M-DEQ#: 01N13W18-VM03
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 4
TOTAL ACRES IN SITE 4

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
05/03/99	26,100	7.85		2.1897
05/04/99	17,400	7.85		1.4598
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	43,500			3.6495
YEARLY TOTAL	43,500			3.6495

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	3.1	Pb (lb/ac)	310	15.5
Ph: S.U.	6.7	Zn (lb/ac)	155	7.75
BRAY: PPM	20	Cu (lb/ac)	77.5	3.875
K: PPM	26	Ni (lb/ac)	31	1.55
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	126			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 300.5753

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	1.6000			
	NH4 %	0.6700			
	NO3%	0.0013			
	AVAN lb/ac		62.5724	62.5724	X
PHOSPHORUS (P)	%	3.5700			
	lb/ac		260.5753	260.5753	X
POTASSIUM (K)	%	0.2100			
	lb/ac		15.3280	15.3280	X
LEAD(Pb)	mg/kg	46.2000			
	lb/ac		0.3372	0.3372	0.3372
ZINC (Zn)	mg/kg	702.0000			
	lb/ac		5.1239	5.1239	5.1239
COPPER (Cu)	mg/kg	455.0000			
	lb/ac		3.3211	3.3211	3.3211
NICKEL (Ni)	mg/kg	14.1000			
	lb/ac		0.1029	0.1029	0.1029
CADMIUM (Cd)	mg/kg	1.7600			
	lb/ac		0.0128	0.0128	0.0128
CHROMIUM (Cr)	mg/kg	24.5000			
	lb/ac		0.1788	0.1788	0.1788
ARSENIC (AS)	mg/kg	4.6400			
	lb/ac		0.0339	0.0339	0.0339
MERCURY (HG)	mg/kg	7.6400			
	lb/ac		0.0558	0.0558	0.0558
MOLYBDENUM (MO	mg/kg	5.1800			
	lb/ac		0.0378	0.0378	0.0378
SELENIUM (SE)	mg/kg	0.0640			
	lb/ac		0.0005	0.0005	0.0005

TOTAL NITROGEN	%	1.6300
CHLORIDES	mg/kg	2310
TOTAL CALCIUM	mg/kg	1.53
TOTAL MAGNES.	mg/kg	0.432
TOTAL SODIUM	mg/kg	0.177
AVAIL. NITROGEN	lb/ton	9.43
PERCENT SOLIDS	(WET) %	7.85

BIOSOLIDS SAMPLE FROM 03/26/99

SOIL SAMPLE FROM 07/18/97

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: APRIL 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR18-VM05

M-DEQ#: 01N13W18-VM05
OF SEASONS UTILIZED TO DATE: 5
ACRES USED THIS MONTH: 6
TOTAL ACRES IN SITE 11

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
04/30/99	78,300	7.85		4.3794
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	78,300			4.3794
YEARLY TOTAL	78,300			4.3794

CROP & SOIL DATA

		ACCEPTABLE METAL ACCUM.		
CROP TO BE FERT.:	CORN			
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	4	Pb (lb/ac)	400	20
Ph: S.U.	5.2	Zn (lb/ac)	200	10
BRAY: PPM	68	Cu (lb/ac)	100	5
K: PPM	26	Ni (lb/ac)	40	2
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	126			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 448.6904

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	1.6000			
	NH4 %	0.6700			
	NO3%	0.0013			
	AVAN lb/ac		75.0869	75.0869	X
PHOSPHORUS (P)	%	3.5700			
	lb/ac		312.6904	312.6904	X
POTASSIUM (K)	%	0.2100			
	lb/ac		18.3936	18.3936	X
LEAD(Pb)	mg/kg	46.2000			
	lb/ac		0.4047	0.4047	1.0347
ZINC (Zn)	mg/kg	702.0000			
	lb/ac		6.1487	6.1487	11.7987
COPPER (Cu)	mg/kg	455.0000			
	lb/ac		3.9853	3.9853	8.8453
NICKEL (Ni)	mg/kg	14.1000			
	lb/ac		0.1235	0.1235	0.3335
CADMIUM (Cd)	mg/kg	1.7600			
	lb/ac		0.0154	0.0154	0.0454
CHROMIUM (Cr)	mg/kg	24.5000			
	lb/ac		0.2146	0.2146	0.7146
ARSENIC (AS)	mg/kg	4.6400			
	lb/ac		0.0406	0.0406	0.2106
MERCURY (HG)	mg/kg	7.6400			
	lb/ac		0.0669	0.0669	0.1069
MOLYBDENUM (MO	mg/kg	5.1800			
	lb/ac		0.0454	0.0454	0.1954
SELENIUM (SE)	mg/kg	0.0640			
	lb/ac		0.0006	0.0006	0.0206

TOTAL NITROGEN	%	1.6300
CHLORIDES	mg/kg	2310
TOTAL CALCIUM	mg/kg	1.53
TOTAL MAGNES.	mg/kg	0.432
TOTAL SODIUM	mg/kg	0.177
AVAIL. NITROGEN	lb/ton	9.43
PERCENT SOLIDS	(WET) %	7.85

BIOSOLIDS SAMPLE FROM 03/26/99

SOIL SAMPLE FROM 07/18/97

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
BIOSOLIDS APPLICATION REPORT

MONTH: MAY 1999
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR18-VM05

M-DEQ#: 01N13W18-VM05
OF SEASONS UTILIZED TO DATE: 5
ACRES USED THIS MONTH: 5
TOTAL ACRES IN SITE 11

BIOSOLIDS APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
05/03/99	78,300	7.85		5.2553
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	78,300			5.2553
YEARLY TOTAL	156,600			4.7776

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	4	Pb (lb/ac)	400	20
Ph: S.U.	5.2	Zn (lb/ac)	200	10
BRAY: PPM	68	Cu (lb/ac)	100	5
K: PPM	26	Ni (lb/ac)	40	2
CROP YIELD GOAL:	140	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	126			

COMBINATION OF SOIL & BIOSOLIDS PHOSPHORUS (POUNDS): 511.2284

BIOSOLIDS ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	1.6000			
	NH4 %	0.6700			
	NO3%	0.0013			
	AVAN lb/ac		90.1042	90.1042	X
PHOSPHORUS (P)	%	3.5700			
	lb/ac		375.2284	375.2284	X
POTASSIUM (K)	%	0.2100			
	lb/ac		22.0723	22.0723	X
LEAD(Pb)	mg/kg	46.2000			
	lb/ac		0.4856	0.4856	1.1156
ZINC (Zn)	mg/kg	702.0000			
	lb/ac		7.3784	7.3784	13.0284
COPPER (Cu)	mg/kg	455.0000			
	lb/ac		4.7823	4.7823	9.6423
NICKEL (Ni)	mg/kg	14.1000			
	lb/ac		0.1482	0.1482	0.3582
CADMIUM (Cd)	mg/kg	1.7600			
	lb/ac		0.0185	0.0185	0.0485
CHROMIUM (Cr)	mg/kg	24.5000			
	lb/ac		0.2575	0.2575	0.7575
ARSENIC (AS)	mg/kg	4.6400			
	lb/ac		0.0488	0.0488	0.2188
MERCURY (HG)	mg/kg	7.6400			
	lb/ac		0.0803	0.0803	0.1203
MOLYBDENUM (MO	mg/kg	5.1800			
	lb/ac		0.0544	0.0544	0.2044
SELENIUM (SE)	mg/kg	0.0640			
	lb/ac		0.0007	0.0007	0.0207

TOTAL NITROGEN	%	1.6300
CHLORIDES	mg/kg	2310
TOTAL CALCIUM	mg/kg	1.53
TOTAL MAGNES.	mg/kg	0.432
TOTAL SODIUM	mg/kg	0.177
AVAIL. NITROGEN	lb/ton	9.43
PERCENT SOLIDS	(WET) %	7.85

BIOSOLIDS SAMPLE FROM
03/26/99

SOIL SAMPLE FROM
07/18/97

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if Different)

NAME

ADDRESS

FACILITY LOCATION Allegan WWTP

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR) (2 16) (17 19)

Form Approved
OMB No 2040-0004
Approval expires 05 31 98

PERMIT NUMBER	DISCHARGE NUMBER
MI0021041	SLD P

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	99	01	01	TO	99	12	31
	(20-21)	(22 23)	(24 25)		(26 27)	(28 29)	(30-31)

PRODUCTION AND USE

*** NO DISCHARGE [ ] ***

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46 53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUANTITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO EX (62 63)	FREQUENCY OF ANALYSIS (64-68)	SAMPL TYPE (69-70
ANN. AMT SLUDGE DISPOSED BY OTHER METHOD 49017 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	N/A	(4A)	*******	*******	*******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	*******	*******	*******	**** ****			
ANNUAL AMT OF SLUDGE INCINERATED 49018 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	N/A	(4A)	*******	*******	*******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	*******	*******	*******	**** ****			
ANNUAL SLUDGE PRODUCTION, TOTAL 49019 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	Plant to SUPPLY	(4A)	*******	*******	*******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	*******	*******	*******	**** ****			
ANNUAL AMOUNT OF SLUDGE LAND APPLIED 49020 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	268.8484	(4A)	*******	*******	*******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	*******	*******	*******	**** ****			
ANNUAL AMT. SLUDGE DISPOSED SURFACE UNIT 49021 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	N/A	(4A)	*******	*******	*******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	*******	*******	*******	**** ****			
ANNUAL AMT SLUDGE DISPOSED IN LANDFILL 49022 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	N/A	(4A)	*******	*******	*******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	*******	*******	*******	**** ****			
ANNUAL AMT SLUDGE TRANSPORTED INTERSTATE 49023 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	N/A	(4A)	*******	*******	*******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	*******	*******	*******	**** ****			

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U S C § 1001 AND 33 U S C § 1319 (Penalties under these statutes may include fines up to $10 000 and or maximum imprisonment of between 6 months and 5 years)		AREA CODE / NUMBER	YEAR	MO	DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

* IF ANNUAL SLUDGE DISPOSED BY OTHER METHODS IS APPLICABLE, EXPLAIN METHOD OF DISPOSAL

ALLEGAN WWTP - 1998

MDEQ #	FIELD #'S	OWNER	FARMER	ADDRESS	CITY	ZIP CODE	ACRES	LAST APP. DATE	ACRES USED	ALLONS APPLIED	DRY TON PER ACRE	TOTAL DRY TON	PHONE #	PERMIT EXPIR.
02N13W27-CA01	AL27-CA01	CITY OF ALLEGAN	SAME	112 LOCUST STREET	ALLEGAN	49010	40					0 0000	616-673-5511	07-09-02
03N12W31-DC01	HO31-DC01	CITY OF ALLEGAN	DON COOK	3139 112ND AVE	ALLEGAN	49010	70					0 0000	616-673-5454	07-09-02
02N12W19-DC01	WA19-DC01	CITY OF ALLEGAN	DON COOK	3139 112ND AVE	ALLEGAN	49010	19					0 0000	616-673-5454	07-09-02
02N12W28-DC01	WA28-DC01	CITY OF ALLEGAN	DON COOK	3139 112ND AVE	ALLEGAN	49010	28					0 0000	616-673-5454	07-09-02
01S14W11-WB01	BL11-WB01	WAYNE BRIGANCE	SAME	36261 CR 390	GOBLES	49055	23					0 0000	616-521-3613	05-08-99
01N13W20-DB01	TR20-DB01	DOUG BROWN	SAME	3246 104TH AVE	ALLEGAN	49010	7					0 0000	616-673-8168	12-22-98
01N13W20-DB02	TR20-DB02	DOUG BROWN	SAME	3246 104TH AVE	ALLEGAN	49010	60					0 0000	616-673-2857	10-15-97
01N13W20-JC01	TR20-JC01	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	17					0 0000	616-673-2857	06-19-03
01N13W20-JC02	TR20-JC02	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	19					0 0000	616-673-2857	06-19-03
01N13W20-JC03	TR20-JC03	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	21	08-01-97				0 0000	616-673-2857	06-19-03
01N13W20-JC04	TR20-JC04	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	21	08-04-97				0 0000	616-673-2857	06-19-03
01N13W20-JC05	TR20-JC05	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	13	08-06-97				0 0000	616-673-2857	06-19-03
01N13W20-JC06	TR20-JC06	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	34					0 0000	616-673-2857	06-19-03
01N13W20-JC08	TR20-JC08	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	15					0 0000	616-673-2857	06-19-03
01N13W20-JC09	TR20-JC09	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	11					0 0000	616-673-2857	06-19-03
02N12W33-DC01	WA33-DC01	DON COOK	SAME	3139 122ND AVE	ALLEGAN	49010	72					0 0000	616-673-5454	10-09-02
02N12W31-WC01	WA31-WC01	WAYNE CURTISS	SAME	2270 112TH ST	ALLEGAN	49010	80	06-30-98	5	66,100	3 4223	17 1115	616-673-8103	06-03-03
							80	07-02-98	20	199,700	2 5849	51 6980		
01S13W06-JD01	PG06-JD01	JACQUELINE DROBNY	JIM CHESTNUT	3308 104TH AVE	ALLEGAN	49010	18					0 0000	616-673-7229	05-18-00
01S14W02-EG01	BL02-EG01	EDNA GRAZIER	WAYNE BRIGANCE	36261 CR 390	GOBLES	49055	23					0 0000	616-521-6164	05-08-99
02N13W13-KH01	AL13-KH01	KEN HECKMAN	SAME	770 N MAIN ST	ALLEGAN	49010	51					0 0000	616-673-3558	03-29-99
02N13W36-KH01	AL36-KH01	KEN HECKMAN	SAME	770 N MAIN ST	ALLEGAN	49010	96					0 0000	616-673-3098	03-29-99
02N12W29-MH01	WA29-MH01	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	47					0 0000	616-673-4569	02-23-94
02N12W29-MH02	WA29-MH02	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	29					0 0000	616-673-4569	02-23-94
02N12W29-MH03	WA29-MH03	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	35					0 0000	616-673-4569	02-23-94
02N12W32-MH01	WA32-MH01	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	82					0 0000	616-673-4569	02-23-94
02N12W33-MH01	WA33-MH01	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	40					0 0000	616-673-4569	02-23-94
01N14W07-LJ01	CH07-LJ01	LESTER JONES	SAME	P O BOX 234	ALLEGAN	49010	63					0 0000	616-521-4848	10-19-98
01N13W07-VM01	TR07-VM01	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	7					0 0000	616-673-3845	07-21-02
01N13W07-VM02	TR07-VM02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	14					0 0000	616-673-3845	07-21-02
01N13W07-VM03	TR07-VM03	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	13					0 0000	616-673-3845	07-21-02
01N13W07-VM04	TR07-VM04	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	15					0 0000	616-673-3845	07-21-02
01N13W07-VM05	TR07-VM05	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	13					0 0000	616-673-3845	07-21-02
01N13W07-VM06	TR07-VM06	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	6					0 0000	616-673-3845	07-21-02
01N13W18-VM01	TR18-VM01	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	15	11-17-98	15	139,200	1 8611	27 9165	616-673-3845	07-18-02
01N13W18-VM02	TR18-VM02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	9					0 0000	616-673-3845	07-18-02
01N13W18-VM03	TR18-VM03	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	4					0 0000	616-673-3845	07-18-02
01N13W18-VM04	TR18-VM04	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	12					0 0000	616-673-3845	07-18-02
01N13W18-VM05	TR18-VM05	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	11					0 0000	616-673-3845	07-18-02
01N13W18-VM06	TR18-VM06	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	13					0 0000	616-673-3845	07-18-02
01N13W18-VM07	TR18-VM07	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	12					0 0000	616-673-3845	07-18-02
01N13W18-VM08	TR18-VM08	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	10					0 0000	616-673-3845	07-18-02
01N13W18-VM09	TR18-VM09	VIRGIL MERCHANT	SAME	3406 108TH AVENUE	ALLEGAN	49010	20	07-03-98	17	76,900	1 1710	19 9070	616-673-3845	07-18-02
01N13W30-JP01	TR30-JP01	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	41					0 0000	616-673-6137	11-06-00

ALLEGAN WWTP - 1998

MDEQ #	FIELD #'S	OWNER	FARMER	ADDRESS	CITY	ZIP CODE	ACRES	LAST APP. DATE	ACRES USED	ALLONS APPLIED	DRY TON PER ACRE	TOTAL DRY TON	PHONE #	PERMIT EXPIR.
01N13W30-JP02	TR30-JP02	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	28					0 0000	616-673-6137	11-06-00
01N13W30-JP03	TR30-JP03	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	35					0 0000	616-673-6137	11-06-00
01N13W30-JP04	TR30-JP04	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	14					0 0000	616-673-6137	11-06-00
01N13W30-JP05	TR30-JP05	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	30					0 0000	616-673-6137	11-06-00
01N13W30-JP06	TR30-JP06	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	12					0 0000	616-673-6137	11-06-00
01N13W30-JP07	TR30-JP07	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	26					0 0000	616-673-6137	11-06-00
01N13W31-JP01	TR31-JP01	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	20					0 0000	616-673-6137	11-06-00
01N13W31-JP02	TR31-JP02	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	18					0 0000	616-673-6137	11-06-00
03N12W33-MS01	HO33-MS01	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	20					0 0000	616-793-3084	11-10-01
03N12W33-MS02	H033-MS02	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	16					0 0000	616-793-3084	11-10-01
03N12W33-MS03	HO33-MS03	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	11					0 0000	616-793-3084	11-10-01
03N12W33-MS04	HO33-MS04	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	20					0 0000	616-793-3084	11-10-01
02N11W10-JS01	MA10-JS01	JACK SIPPLE	JACK SIPPLE	460 121st AVE	SHELBYVILLE	49344	50	08-20-98	50	579,900	3 0024	150 1200	616-672-7615	07-28-03
01S13W17-CW01	PG17-CW01	CARL WAHMHOFF	SAME	35521 BASELINE RD	GOBLES	49055	60					0 0000	616-628-4308	10-05-00
01S13W18-CW01	PG18-CW01	CARL WAHMHOFF	SAME	35521 BASELINE RD	GOBLES	49055	99					0 0000	616-628-4308	10-26-00
01S14W25-CW01	BL25-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	105	11-18-98	20	147,900	1 4831	29 6620	616-628-4308	06-16-99
01S14W36-CW01	BL36-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	146					0 0000	616-628-4308	06-15-99
01N15W26-CW01	LE26-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	60					0 0000	616-628-4308	06-14-99
01N15W27-CW03	LE27-CW03	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	35					0 0000	616-628-4308	06-14-99
01S13W30-CW01	PG30-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	34					0 0000	616-628-4308	06-14-99
01N15W27-CW01	LE27-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	30					0 0000	616-628-4308	02-07-98
01N15W17-CW01	LE17-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	36					0 0000	616-628-4308	03-18-98
01N15W20-CW01	LE20-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	30					0 0000	616-628-4308	03-18-98
01N15W24-CW01	LE24-CW01	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	30					0 0000	616-628-4308	03-18-98
01N15W27-CW02	LE27-CW02	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	10					0 0000	616-628-4308	03-18-98
						TOTAL				1,209,700		296.4150		
						METRIC DRY TON						268.8484		

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: JUNE 1998
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: WAYNE CURTISS
FIELD NUMBER: WA31-WC01

M-DEQ#: 02N12W31-WC01
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 5
TOTAL ACRES IN SITE 80

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
06-30-98	66,100	6.12		3.4223
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	66,100			3.4223
YEARLY TOTAL	66,100			3.4223

CROP & SOIL DATA

CROP TO BE FERT.: CORN		ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CROP: CORN			TOTAL	YEARLY
CEC: ME/100G	9.2	Pb (lb/ac)	920	46
Ph: S.U.	6.7	Zn (lb/ac)	460	23
BRAY: PPM	14	Cu (lb/ac)	230	11.5
K: PPM	112	Ni (lb/ac)	92	4.6
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 175.8451

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.3900			
	NH4 %	0.5300			
	NO3%	0.0016			
	AVAN lb/ac		102.9187	102.9187	X
PHOSPHORUS (TP)	%	2.1600			
	lb/ac		147.8451	147.8451	X
POTASSIUM (K)	%	0.1730			
	lb/ac		11.8413	11.8413	X
LEAD(Pb)	mg/kg	37.4000			
	lb/ac		0.2560	0.2560	0.2560
ZINC (Zn)	mg/kg	881.0000			
	lb/ac		6.0302	6.0302	6.0302
COPPER (Cu)	mg/kg	446.0000			
	lb/ac		3.0527	3.0527	3.0527
NICKEL (Ni)	mg/kg	14.2000			
	lb/ac		0.0972	0.0972	0.0972
CADMIUM (Cd)	mg/kg	1.1400			
	lb/ac		0.0078	0.0078	0.0078
CHROMIUM (Cr)	mg/kg	34.0000			
	lb/ac		0.2327	0.2327	0.2327
ARSENIC (AS)	mg/kg	2.7000			
	lb/ac		0.0185	0.0185	0.0185
MERCURY (HG)	mg/kg	1.6300			
	lb/ac		0.0112	0.0112	0.0112
MOLYBDENUM (MO	mg/kg	3.7400			
	lb/ac		0.0256	0.0256	0.0256
SELENIUM (SE)	mg/kg	0.0820			
	lb/ac		0.0006	0.0006	0.0006

TOTAL NITROGEN	%	5.3900
CHLORIDES	mg/kg	3420
TOTAL CALCIUM	mg/kg	1.35
TOTAL MAGNES.	mg/kg	0.498
TOTAL SODIUM	mg/kg	0.217
AVAIL. NITROGEN	lb/ton	31.2
PERCENT SOLIDS	(WET) %	6.12

SLUDGE SAMPLE FROM 04-20-98

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: JULY 1998
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: WAYNE CURTISS
FIELD NUMBER: WA31-WC01

M-DEQ#: 02N12W31-WC01
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 20
TOTAL ACRES IN SITE 80

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
07-01-98	132,900	6.12		1.7202
07-02-98	66,800	6.12		0.8646
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	199,700			2.5849
YEARLY TOTAL	265,800			6.0072

CROP & SOIL DATA

CROP TO BE FERT.: CORN		ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CROP: CORN			TOTAL	YEARLY
CEC: ME/100G	9.2	Pb (lb/ac)	920	46
Ph: S.U.	6.7	Zn (lb/ac)	460	23
BRAY: PPM	14	Cu (lb/ac)	230	11.5
K: PPM	112	Ni (lb/ac)	92	4.6
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 175.8451

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.3900			
	NH4 %	0.5300			
	NO3%	0.0016			
	AVAN lb/ac		77.7340	102.9187	X
PHOSPHORUS (TP)	%	2.1600			
	lb/ac		111.6667	147.8451	X
POTASSIUM (K)	%	0.1730			
	lb/ac		8.9437	11.8413	X
LEAD(Pb)	mg/kg	37.4000			
	lb/ac		0.1933	0.2560	0.2560
ZINC (Zn)	mg/kg	881.0000			
	lb/ac		4.5546	6.0302	6.0302
COPPER (Cu)	mg/kg	446.0000			
	lb/ac		2.3057	3.0527	3.0527
NICKEL (Ni)	mg/kg	14.2000			
	lb/ac		0.0734	0.0972	0.0972
CADMIUM (Cd)	mg/kg	1.1400			
	lb/ac		0.0059	0.0078	0.0078
CHROMIUM (Cr)	mg/kg	34.0000			
	lb/ac		0.1758	0.2327	0.2327
ARSENIC (AS)	mg/kg	2.7000			
	lb/ac		0.0140	0.0185	0.0185
MERCURY (HG)	mg/kg	1.6300			
	lb/ac		0.0084	0.0112	0.0112
MOLYBDENUM (MO	mg/kg	3.7400			
	lb/ac		0.0193	0.0256	0.0256
SELENIUM (SE)	mg/kg	0.0820			
	lb/ac		0.0004	0.0006	0.0006

TOTAL NITROGEN	%	5.3900
CHLORIDES	mg/kg	3420
TOTAL CALCIUM	mg/kg	1.35
TOTAL MAGNES.	mg/kg	0.498
TOTAL SODIUM	mg/kg	0.217
AVAIL. NITROGEN	lb/ton	31.2
PERCENT SOLIDS	(WET) %	6.12

SLUDGE SAMPLE FROM 04-20-98

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: NOVEMBER 1998
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR18-VM01

M-DEQ#: 01N13W18-VM01
OF SEASONS UTILIZED TO DATE 1
ACRES USED THIS MONTH: 15
TOTAL ACRES IN SITE 15

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
11-16-98	104,400	4.73		1.3958
11-17-98	34,800	4.73		0.4653
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	139,200			1.8611
YEARLY TOTAL	139,200			1.8611

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	4.5	Pb (lb/ac)	450	22.5
Ph: S.U.	6.8	Zn (lb/ac)	225	11.25
BRAY: PPM	29	Cu (lb/ac)	112.5	5.625
K: PPM	15	Ni (lb/ac)	45	2.25
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 171.1563

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	3.3600			
	NH4 %	0.8500			
	NO3%	0.0021			
	AVAN lb/ac		50.4033	50.4033	X
PHOSPHORUS (TP)	%	3.0400			
	lb/ac		113.1563	113.1563	X
POTASSIUM (K)	%	0.2330			
	lb/ac		8.6728	8.6728	X
LEAD(Pb)	mg/kg	38.3000			
	lb/ac		0.1426	0.1426	0.1426
ZINC (Zn)	mg/kg	755.0000			
	lb/ac		2.8103	2.8103	2.8103
COPPER (Cu)	mg/kg	609.0000			
	lb/ac		2.2668	2.2668	2.2668
NICKEL (Ni)	mg/kg	15.6000			
	lb/ac		0.0581	0.0581	0.0581
CADMIUM (Cd)	mg/kg	1.0600			
	lb/ac		0.0039	0.0039	0.0039
CHROMIUM (Cr)	mg/kg	51.8000			
	lb/ac		0.1928	0.1928	0.1928
ARSENIC (AS)	mg/kg	5.7900			
	lb/ac		0.0216	0.0216	0.0216
MERCURY (HG)	mg/kg	0.9940			
	lb/ac		0.0037	0.0037	0.0037
MOLYBDENUM (MO	mg/kg	3.0900			
	lb/ac		0.0115	0.0115	0.0115
SELENIUM (SE)	mg/kg	0.0850			
	lb/ac		0.0003	0.0003	0.0003

TOTAL NITROGEN	%	3.3600
CHLORIDES	mg/kg	4160
TOTAL CALCIUM	mg/kg	1.85
TOTAL MAGNES.	mg/kg	0.634
TOTAL SODIUM	mg/kg	0.304
AVAIL. NITROGEN	lb/ton	19.5
PERCENT SOLIDS	(WET) %	4.73

SLUDGE SAMPLE FROM 10-06-98

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: JULY 1998
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: VIRGIL MERCHANT
FIELD NUMBER: TR18-VM09

M-DEQ#: 01N13W18-VM09
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 17
TOTAL ACRES IN SITE 20

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
07-02-98	33,400	6.12		0.5086
07-03-98	43,500	6.12		0.6624
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	76,900			1.1710
YEARLY TOTAL	76,900			1.1710

CROP & SOIL DATA

		ACCEPTABLE METAL ACCUM.	TOTAL	YEARLY
CROP TO BE FERT.: CORN				
SUBSEQUENT CROP:CORN				
CEC: ME/100G	4.4	Pb (lb/ac)	440	22
Ph: S.U.	5.3	Zn (lb/ac)	220	11
BRAY: PPM	117	Cu (lb/ac)	110	5.5
K: PPM	113	Ni (lb/ac)	44	2.2
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 284.5886

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.3900			
	NH4 %	0.5300			
	NO3%	0.0016			
	AVAN lb/ac		35.2160	35.2160	X
PHOSPHORUS (TP)	%	2.1600			
	lb/ac		50.5886	50.5886	X
POTASSIUM (K)	%	0.1730			
	lb/ac		4.0518	4.0518	X
LEAD(Pb)	mg/kg	37.4000			
	lb/ac		0.0876	0.0876	0.0876
ZINC (Zn)	mg/kg	881.0000			
	lb/ac		2.0634	2.0634	2.0634
COPPER (Cu)	mg/kg	446.0000			
	lb/ac		1.0446	1.0446	1.0446
NICKEL (Ni)	mg/kg	14.2000			
	lb/ac		0.0333	0.0333	0.0333
CADMIUM (Cd)	mg/kg	1.1400			
	lb/ac		0.0027	0.0027	0.0027
CHROMIUM (Cr)	mg/kg	34.0000			
	lb/ac		0.0796	0.0796	0.0796
ARSENIC (AS)	mg/kg	2.7000			
	lb/ac		0.0063	0.0063	0.0063
MERCURY (HG)	mg/kg	1.6300			
	lb/ac		0.0038	0.0038	0.0038
MOLYBDENUM (MO	mg/kg	3.7400			
	lb/ac		0.0088	0.0088	0.0088
SELENIUM (SE)	mg/kg	0.0820			
	lb/ac		0.0002	0.0002	0.0002

TOTAL NITROGEN	%	5.3900
CHLORIDES	mg/kg	3420
TOTAL CALCIUM	mg/kg	1.35
TOTAL MAGNES.	mg/kg	0.498
TOTAL SODIUM	mg/kg	0.217
AVAIL. NITROGEN	lb/ton	31.2
PERCENT SOLIDS	(WET) %	6.12

SLUDGE SAMPLE FROM 04-20-98

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: AUGUST 1998
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JACK SIPPLE
FIELD NUMBER: MA10-JS01

M-DEQ#: 02N11W10-JS01
OF SEASONS UTILIZED TO DATE 1
ACRES USED THIS MONTH: 50
TOTAL ACRES IN SITE 50

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
08-13-98	52,200	6.12		0.2703
08-14-98	102,300	6.12		0.5297
08-17-98	134,400	6.12		0.6959
08-18-98	134,400	6.12		0.6959
08-19-98	87,000	6.12		0.4504
08-20-98	69,600	6.12		0.3604
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	579,900			3.0024
YEARLY TOTAL	579,900			3.0024

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	2.6	Pb (lb/ac)	260	13
Ph: S.U.	6	Zn (lb/ac)	130	6.5
BRAY: PPM	31	Cu (lb/ac)	65	3.25
K: PPM	71	Ni (lb/ac)	26	1.3
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 191.7056

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	5.3900			
	NH4 %	0.5300			
	NO3%	0.0016			
	AVAN lb/ac		90.2913	90.2913	X
PHOSPHORUS (TP)	%	2.1600			
	lb/ac		129.7056	129.7056	X
POTASSIUM (K)	%	0.1730			
	lb/ac		10.3885	10.3885	X
LEAD(Pb)	mg/kg	37.4000			
	lb/ac		0.2246	0.2246	0.2246
ZINC (Zn)	mg/kg	881.0000			
	lb/ac		5.2903	5.2903	5.2903
COPPER (Cu)	mg/kg	446.0000			
	lb/ac		2.6782	2.6782	2.6782
NICKEL (Ni)	mg/kg	14.2000			
	lb/ac		0.0853	0.0853	0.0853
CADMIUM (Cd)	mg/kg	1.1400			
	lb/ac		0.0068	0.0068	0.0068
CHROMIUM (Cr)	mg/kg	34.0000			
	lb/ac		0.2042	0.2042	0.2042
ARSENIC (AS)	mg/kg	2.7000			
	lb/ac		0.0162	0.0162	0.0162
MERCURY (HG)	mg/kg	1.6300			
	lb/ac		0.0098	0.0098	0.0098
MOLYBDENUM (MO)	mg/kg	3.7400			
	lb/ac		0.0225	0.0225	0.0225
SELENIUM (SE)	mg/kg	0.0820			
	lb/ac		0.0005	0.0005	0.0005

TOTAL NITROGEN	%	5.3900
CHLORIDES	mg/kg	3420
TOTAL CALCIUM	mg/kg	1.35
TOTAL MAGNES.	mg/kg	0.498
TOTAL SODIUM	mg/kg	0.217
AVAIL. NITROGEN	lb/ton	31.2
PERCENT SOLIDS	(WET) %	6.12

SLUDGE SAMPLE FROM 04-20-98

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: NOVEMBER 1998
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: CARL WAHMHOFF
FIELD NUMBER: BL25-CW01

M-DEQ#: 01S14W25-CW01
OF SEASONS UTILIZED TO DATE 1
ACRES USED THIS MONTH: 20
TOTAL ACRES IN SITE 105

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
11-17-98	43,500	4.73		0.4362
11-18-98	104,400	4.73		1.0469
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	147,900			1.4831
YEARLY TOTAL	147,900			1.4831

CROP & SOIL DATA

CROP TO BE FERT.:	CORN	ACCEPTABLE METAL ACCUM.		
SUBSEQUENT CRO	CORN		TOTAL	YEARLY
CEC: ME/100G	3.6	Pb (lb/ac)	360	18
Ph: S.U.	6.7	Zn (lb/ac)	180	9
BRAY: PPM	104	Cu (lb/ac)	90	4.5
K: PPM	92	Ni (lb/ac)	36	1.8
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 298.1714

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	3.3600			
	NH4 %	0.8500			
	NO3%	0.0021			
	AVAN lb/ac		40.1651	40.1651	X
PHOSPHORUS (TP)	%	3.0400			
	lb/ac		90.1714	90.1714	X
POTASSIUM (K)	%	0.2330			
	lb/ac		6.9112	6.9112	X
LEAD(Pb)	mg/kg	38.3000			
	lb/ac		0.1136	0.1136	0.1136
ZINC (Zn)	mg/kg	755.0000			
	lb/ac		2.2395	2.2395	2.2395
COPPER (Cu)	mg/kg	609.0000			
	lb/ac		1.8064	1.8064	1.8064
NICKEL (Ni)	mg/kg	15.6000			
	lb/ac		0.0463	0.0463	0.0463
CADMIUM (Cd)	mg/kg	1.0600			
	lb/ac		0.0031	0.0031	0.0031
CHROMIUM (Cr)	mg/kg	51.8000			
	lb/ac		0.1536	0.1536	0.1536
ARSENIC (AS)	mg/kg	5.7900			
	lb/ac		0.0172	0.0172	0.0172
MERCURY (HG)	mg/kg	0.9940			
	lb/ac		0.0029	0.0029	0.0029
MOLYBDENUM (MO)	mg/kg	3.0900			
	lb/ac		0.0092	0.0092	0.0092
SELENIUM (SE)	mg/kg	0.0850			
	lb/ac		0.0003	0.0003	0.0003

TOTAL NITROGEN	%	3.3600
CHLORIDES	mg/kg	4160
TOTAL CALCIUM	mg/kg	1.85
TOTAL MAGNES.	mg/kg	0.634
TOTAL SODIUM	mg/kg	0.304
AVAIL. NITROGEN	lb/ton	19 5
PERCENT SOLIDS	(WET) %	4.73

SLUDGE SAMPLE FROM 10-06-98

EE NAME/ADDRESS *(Include Facility Name/ Location if Different)*
ALLEGAN WWTP
; 112 LOCUST STREET
ALLEGAN MI 49010

N
: DWIGHT FARGO

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

MI L020532	SL E P
PERMIT NUMBER *(2-16)*	DISCHARGE NUMBER *(17-19)*

PRODUCTION AND US

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98
12345

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	97	01	01	TO	97	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

*** NC DISCHARGE | | ***
NOTE: Read Instructions before completing this form.

PARAMETER *(32-37)*		(3 Card Only) QUANTITY OR LOADING (46-53) / (54-61) AVERAGE	MAXIMUM	UNITS	(4 Card Only) QUANTITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
AMT SLUDGE DISP BY OTHER METHOD	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******				
7 + 0 0 GE	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	******			
AL AMT OF SLUDGE NERATED	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******				
3 + 0 0 GE	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	******			
AL SLUDGE PRODUC , TOTAL	SAMPLE MEASUREMENT	******	150.06	(4A)	******	******	******				
9 + 0 0 GE	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	******			
AL AMOUNT OF SLU AND APPLIED	SAMPLE MEASUREMENT	******	150.06	(4A)	******	******	******				
) + 0 0 GE	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	******			
AL AMT. SLUDGE D ED SURFACE UNIT	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******				
. + 0 0 GE	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	******			
AL AMT SLUDGE DI D IN LANDFILL	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******				
+ 0 0 E	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	******			
L AMT SLUDGE TR RTED INTERSTATE	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******				
+ 0 0 E	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	******			

TLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE
Dwight Fargo	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN, AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U S C § 1001 AND 33 U S C § 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*		AREA CODE / NUMBER	YEAR / MO / DAY
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		

TS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
ANNUAL SLUDGE DISPOSED BY OTHER METHODS IS APPLICABLE, EXPLAIN METHOD OF DISPOSAL

(97-85) Previous editions may be used. PLACES EPA FORM T-40 WHICH MAY NOT BE USED.)

ALLEGAN WWTP - 1997

MDEQ #	FIELD #'S	EXPIR.	OWNER	FARMER	ADDRESS	CITY	ZIP CODE	ACRES	LAST APP. DATE	ACRES USED	GALLONS APPLIED	DRY TON PER ACRE	TOTAL DRY TON	PHONE #
02N13W27-CA01	AL27-CA01	07-09-02	CITY OF ALLEGAN	SAME	112 LOCUST STREET	ALLEGAN	49010	40					0 0000	616-673-5511
03N12W31-DC01	HO31-DC01	07-09-02	CITY OF ALLEGAN	DON COOK	3139 112ND AVE	ALLEGAN	49010	70					0 0000	616-673-5454
02N12W19-DC01	WA19-DC01	07-09-02	CITY OF ALLEGAN	DON COOK	3139 112ND AVE	ALLEGAN	49010	19					0 0000	616-673-5454
02N12W28-DC01	WA28-DC01	07-09-02	CITY OF ALLEGAN	DON COOK	3139 112ND AVE	ALLEGAN	49010	28					0 0000	616-673-5454
01S14W11-WB01	BL11-WB01	05-08-99	WAYNE BRIGANCE	SAME	36261 CR 390	GOBLES	49055	23					0 0000	616-521-3613
01N13W20-DB01	TR20-DB01	12-22-98	DOUG BROWN	SAME	3246 104TH AVE	ALLEGAN	49010	7					0 0000	616-673-8168
01N13W20-DB02	TR20-DB02	10-15-97	DOUG BROWN	SAME	3246 104TH AVE	ALLEGAN	49010	60					0 0000	616-673-2857
01N13W20-JC01	TR20-JC01	02-09-98	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	17					0 0000	616-673-2857
01N13W20-JC02	TR20-JC02	02-09-98	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	19					0 0000	616-673-2857
01N13W20-JC03	TR20-JC03	10-15-97	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	21	08-01-97	21	167,000	2 0041	42 0861	616-673-2857
01N13W20-JC04	TR20-JC04	10-15-97	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	21	08-04-97	21	200,500	2 4061	50 5281	616-673-2857
01N13W20-JC05	TR20-JC05	10-15-97	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	13	08-06-97	34	269,000	2 1421	72 8314	616-673-2857
01N13W20-JC06	TR20-JC06	02-09-97	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	34					0 0000	616-673-2857
01N13W20-JC08	TR20-JC08	02-09-98	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	15					0 0000	616-673-2857
01N13W20-JC09	TR20-JC09	10-15-97	JIM CHESTNUT	SAME	3308 104TH AVE	ALLEGAN	49010	11					0 0000	616-673-2857
02N12W33-DC01	WA33-DC01	10-09-02	DON COOK	SAME	3139 122ND AVE	ALLEGAN	49010	72					0 0000	616-673-5454
01S13W06-JD01	PG06-JD01	05-18-00	JACQUELINE DROBNY	JIM CHESTNUT	3308 104TH AVE	ALLEGAN	49010	18					0 0000	616-673-7229
01S14W02-EG01	BL02-EG01	05-08-99	EDNA GRAZIER	WAYNE BRIGANCE	36261 CR 390	GOBLES	49055	23					0 0000	616-521-6164
02N13W13-KH01	AL13-KH01	03-29-99	KEN HECKMAN	SAME	770 N MAIN ST	ALLEGAN	49010	51					0 0000	616-673-3558
02N13W36-KH01	AL36-KH01	03-29-99	KEN HECKMAN	SAME	770 N MAIN ST	ALLEGAN	49010	96					0 0000	616-673-3098
02N12W29-MH01	WA29-MH01	02-23-94	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	47					0 0000	616-673-4569
02N12W29-MH02	WA29-MH02	02-23-94	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	29					0 0000	616-673-4569
02N12W29-MH03	WA29-MH03	02-23-94	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	35					0 0000	616-673-4569
02N12W32-MH01	WA32-MH01	02-23-94	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	82					0 0000	616-673-4569
02N12W33-MH01	WA33-MH01	02-23-94	MARVIN HENRICKSON	SAME	RR #7, 21ST STREET	ALLEGAN	49010	40					0 0000	616-673-4569
01N14W07-LJ01	CH07-LJ01	10-19-98	LESTER JONES	SAME	P O BOX 234	ALLEGAN	49010	63					0 0000	616-521-4848
01N13W07-VM01	TR07-VM01	07-21-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	7					0 0000	616-673-3845
01N13W07-VM02	TR07-VM02	07-21-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	14					0 0000	616-673-3845
01N13W07-VM03	TR07-VM03	07-21-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	13					0 0000	616-673-3845
01N13W07-VM04	TR07-VM04	07-21-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	15					0 0000	616-673-3845
01N13W07-VM05	TR07-VM05	07-21-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	13					0 0000	616-673-3845
01N13W07-VM06	TR07-VM06	07-21-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	6					0 0000	616-673-3845
01N13W18-VM01	TR18-VM01	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	15					0 0000	616-673-3845
01N13W18-VM02	TR18-VM02	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	9					0 0000	616-673-3845
01N13W18-VM03	TR18-VM03	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	4					0 0000	616-673-3845
01N13W18-VM04	TR18-VM04	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	12					0 0000	616-673-3845
01N13W18-VM05	TR18-VM05	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	11					0 0000	616-673-3845
01N13W18-VM06	TR18-VM06	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	13					0 0000	616-673-3845
01N13W18-VM07	TR18-VM07	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	12					0 0000	616-673-3845
01N13W18-VM08	TR18-VM08	07-18-02	VIRGIL MERCHANT	SAME	3406 108TH AVE	ALLEGAN	49010	10					0 0000	616-673-3845
01N13W30-JP01	TR30-JP01	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	41					0 0000	616-673-6137
01N13W30-JP02	TR30-JP02	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	28					0 0000	616-673-6137
01N13W30-JP03	TR30-JP03	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	35					0 0000	616-673-6137
01N13W30-JP04	TR30-JP04	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	14					0 0000	616-673-6137
01N13W30-JP05	TR30-JP05	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	30					0 0000	616-673-6137
01N13W30-JP06	TR30-JP06	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	12					0 0000	616-673-6137

ALLEGAN WWTP - 1997

MDEQ #	FIELD #'S	EXPIR.	OWNER	FARMER	ADDRESS	CITY	ZIP CODE	ACRES	LAST APP. DATE	ACRES USED	GALLONS APPLIED	DRY TON PER ACRE	TOTAL DRY TON	PHONE #
01N13W30-JP07	TR30-JP07	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	26					0 0000	616-673-6137
01N13W31-JP01	TR31-JP01	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	20					0 0000	616-673-6137
01N13W31-JP02	TR31-JP02	11-06-00	JEROME PETROSHUS	SAME	751 S M-40	ALLEGAN	49010	18					0 0000	616-673-6137
03N12W33-MS01	HO33-MS01	11-10-01	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	20					0 0000	616-793-3084
03N12W33-MS02	H033-MS02	11-10-01	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	16					0 0000	616-793-3084
03N12W33-MS03	HO33-MS03	11-10-01	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	11					0 0000	616-793-3084
03N12W33-MS04	HO33-MS04	11-10-01	MARK SCHAEFER	SAME	1950 125TH AVE	HOPKINS	49328	20					0 0000	616-793-3084
01S13W17-CW01	PG17-CW01	10-05-00	CARL WAHMHOFF	SAME	35521 BASELINE RD	GOBLES	49055	60					0 0000	616-628-4308
01S13W18-CW01	PG18-CW01	10-26-00	CARL WAHMHOFF	SAME	35521 BASELINE RD	GOBLES	49055	99					0 0000	616-628-4308
01S14W25-CW01	BL25-CW01	06-16-99	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	105					0 0000	616-628-4308
01S14W36-CW01	BL36-CW01	06-15-99	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	146					0 0000	616-628-4308
01N15W26-CW01	LE26-CW01	06-14-99	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	60					0 0000	616-628-4308
01N15W27-CW03	LE27-CW03	06-14-99	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	35					0 0000	616-628-4308
01S13W30-CW01	PG30-CW01	06-14-99	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	34					0 0000	616-628-4308
01N15W27-CW01	LE27-CW01	02-07-98	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	30					0 0000	616-628-4308
01N15W17-CW01	LE17-CW01	03-18-98	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	36					0 0000	616-628-4308
01N15W20-CW01	LE20-CW01	03-18-98	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	30					0 0000	616-628-4308
01N15W24-CW01	LE24-CW01	03-18-98	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	30					0 0000	616-628-4308
01N15W27-CW02	LE27-CW02	03-18-98	CARL WAHMHOFF	WAHMHOFF FARMS	35521 BASELINE RD	GOBLES	49055	10					0 0000	616-628-4308
							TOTAL				650,600		165.4456	
							`METRIC DRY TON						150.0692	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: AUGUST 1997
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC03

M-DEQ#: 01N13W20-JC03
OF SEASONS UTILIZED TO DATE: 1
ACRES USED THIS MONTH: 21
TOTAL ACRES IN SITE 21

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
08-01-97	110,000	5.8		1.3201
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	110,000			1.3201
YEARLY TOTAL	167,000			2.0041

CROP & SOIL DATA

		ACCEPTABLE METAL ACCUM.	TOTAL	YEARLY
CROP TO BE FERT.: CORN				
SUBSEQUENT CROP: CORN				
CEC: ME/100G	8.2	Pb (lb/ac)	820	41
Ph: S.U.	6	Zn (lb/ac)	410	20.5
BRAY: PPM	46	Cu (lb/ac)	205	10.25
K: PPM	247	Ni (lb/ac)	82	4.1
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 236.4300

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	4.0397			
	NH4 %	1.3172			
	NO3%	0.0066			
	AVAN lb/ac		49.3238	74.8825	X
PHOSPHORUS (TP)	%	3.6034			
	lb/ac		95.1335	144.4300	X
POTASSIUM (K)	%	0.2983			
	lb/ac		7.8754	11.9563	X
LEAD(Pb)	mg/kg	42.8000			
	lb/ac		0.1130	0.1716	0.1716
ZINC (Zn)	mg/kg	712.0000			
	lb/ac		1.8798	2.8539	2.8539
COPPER (Cu)	mg/kg	252.0000			
	lb/ac		0.6653	1.0100	1.0100
NICKEL (Ni)	mg/kg	8.6400			
	lb/ac		0.0228	0.0346	0.0346
CADMIUM (Cd)	mg/kg	1.9700			
	lb/ac		0.0052	0.0079	0.0079
CHROMIUM (Cr)	mg/kg	35.7000			
	lb/ac		0.0943	0.1431	0.1431
ARSENIC (AS)	mg/kg	2.3600			
	lb/ac		0.0062	0.0094	0.0094
MERCURY (HG)	mg/kg	2.5200			
	lb/ac		0.0067	0.0101	0.0101
MOLYBDENUM (MO	mg/kg	3.6000			
	lb/ac		0.0095	0.0144	0.0144
SELENIUM (SE)	mg/kg	0.1900			
	lb/ac		0.0005	0.0008	0.0008

TOTAL NITROGEN	%	4.0466
CHLORIDES	mg/kg	3052
TOTAL CALCIUM	mg/kg	1.7138
TOTAL MAGNES.	mg/kg	0.6103
TOTAL SODIUM	mg/kg	0.2086
AVAIL. NITROGEN	lb/ton	23.4
PERCENT SOLIDS	(WET) %	5.8

SLUDGE SAMPLE FROM
05-22-97

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: AUGUST 1997
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC04

M-DEQ#: 01N13W20-JC04
OF SEASONS UTILIZED TO DATE: 3
ACRES USED THIS MONTH: 21
TOTAL ACRES IN SITE 21

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
08-02-97	102,000	5.8		1.2240
08-04-97	98,500	5.8		1.1820
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	200,500			2.4061
YEARLY TOTAL	200,500			2.4061

CROP & SOIL DATA

		ACCEPTABLE METAL ACCUM.	TOTAL	YEARLY
CROP TO BE FERT.: CORN				
SUBSEQUENT CROP:CORN				
CEC: ME/100G	9.2	Pb (lb/ac)	920	46
Ph: S.U.	6.2	Zn (lb/ac)	460	23
BRAY: PPM	52	Cu (lb/ac)	230	11.5
K: PPM	292	Ni (lb/ac)	92	4.6
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 277.4025

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	4.0397			
	NH4 %	1.3172			
	NO3%	0.0066			
	AVAN lb/ac		89.9038	89.9038	X
PHOSPHORUS (TP)	%	3.6034			
	lb/ac		173.4025	173.4025	X
POTASSIUM (K)	%	0.2983			
	lb/ac		14.3548	14.3548	X
LEAD(Pb)	mg/kg	42.8000			
	lb/ac		0.2060	0.2060	0.7260
ZINC (Zn)	mg/kg	712.0000			
	lb/ac		3.4263	3.4263	9.9463
COPPER (Cu)	mg/kg	252.0000			
	lb/ac		1.2127	1.2127	6.2727
NICKEL (Ni)	mg/kg	8.6400			
	lb/ac		0.0416	0.0416	0.5816
CADMIUM (Cd)	mg/kg	1.9700			
	lb/ac		0.0095	0.0095	0.0395
CHROMIUM (Cr)	mg/kg	35.7000			
	lb/ac		0.1718	0.1718	0.6118
ARSENIC (AS)	mg/kg	2.3600			
	lb/ac		0.0114	0.0114	0.1614
MERCURY (HG)	mg/kg	2.5200			
	lb/ac		0.0121	0.0121	0.0421
MOLYBDENUM (MO	mg/kg	3.6000			
	lb/ac		0.0173	0.0173	0.0373
SELENIUM (SE)	mg/kg	0.1900			
	lb/ac		0.0009	0.0009	0.0409

TOTAL NITROGEN	%	4.0466
CHLORIDES	mg/kg	3052
TOTAL CALCIUM	mg/kg	1.7138
TOTAL MAGNES.	mg/kg	0.6103
TOTAL SODIUM	mg/kg	0.2086
AVAIL. NITROGEN	lb/ton	23.4
PERCENT SOLIDS	(WET) %	5.8

SLUDGE SAMPLE FROM
05-22-97

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE DISPOSAL REPORT

MONTH: AUGUST 1997
FACILITY: ALLEGAN WWTP
SUP. SIGNATURE: _____
FARMER: JIM CHESTNUT
FIELD NUMBER: TR20-JC06

M-DEQ#: 01N13W20-JC06
OF SEASONS UTILIZED TO DATE: 4
ACRES USED THIS MONTH: 34
TOTAL ACRES IN SITE 34

WASTE APPLIED

DATE	GALLONS	% SOLID	% VS	DRY TON PER ACRE
08-05-97	148,500	5.8		1.1007
08-06-97	140,500	5.8		1.0414
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
				0.0000
MONTHLY TOTAL	289,000			2.1421
YEARLY TOTAL	289,000			2.1421

CROP & SOIL DATA

		ACCEPTABLE METAL ACCUM.	TOTAL	YEARLY
CROP TO BE FERT.: CORN				
SUBSEQUENT CROP: CORN				
CEC: ME/100G	8.8	Pb (lb/ac)	880	44
Ph: S.U.	6.9	Zn (lb/ac)	440	22
BRAY: PPM	59	Cu (lb/ac)	220	11
K: PPM	165	Ni (lb/ac)	88	4.4
CROP YIELD GOAL:	150	Cd (lb/ac)	4.5	0.23
NITROGEN REC.:	190			

COMBINATION OF SOIL & SLUDGE PHOSPHORUS (POUNDS): 272.3758

WASTE ANALYSIS AND SOIL LOADING RATES

		PERIOD	MONTH	YTD	CUM.
NITROGEN	TKN %	4.0397			
	NH4 %	1.3172			
	NO3%	0.0066			
	AVAN lb/ac		80.0390	80.0390	X
PHOSPHORUS (TP)	%	3.6034			
	lb/ac		154.3758	154.3758	X
POTASSIUM (K)	%	0.2983			
	lb/ac		12.7797	12.7797	X
LEAD(Pb)	mg/kg	42.8000			
	lb/ac		0.1834	0.1834	0.8034
ZINC (Zn)	mg/kg	712.0000			
	lb/ac		3.0503	3.0503	10.5503
COPPER (Cu)	mg/kg	252.0000			
	lb/ac		1.0796	1.0796	6.2396
NICKEL (Ni)	mg/kg	8.6400			
	lb/ac		0.0370	0.0370	0.6170
CADMIUM (Cd)	mg/kg	1.9700			
	lb/ac		0.0084	0.0084	0.0384
CHROMIUM (Cr)	mg/kg	35.7000			
	lb/ac		0.1529	0.1529	0.6129
ARSENIC (AS)	mg/kg	2.3600			
	lb/ac		0.0101	0.0101	0.1801
MERCURY (HG)	mg/kg	2.5200			
	lb/ac		0.0108	0.0108	0.0408
MOLYBDENUM (MO	mg/kg	3.6000			
	lb/ac		0.0154	0.0154	0.1254
SELENIUM (SE)	mg/kg	0.1900			
	lb/ac		0.0008	0.0008	0.0108

TOTAL NITROGEN	%	4.0466
CHLORIDES	mg/kg	3052
TOTAL CALCIUM	mg/kg	1.7138
TOTAL MAGNES.	mg/kg	0.6103
TOTAL SODIUM	mg/kg	0.2086
AVAIL. NITROGEN	lb/ton	23.4
PERCENT SOLIDS	(WET) %	5.8

SLUDGE SAMPLE FROM
05-22-97

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if Different)*

NAME ALLEGAN CITY

ADDRESS 112 CHICAGO STREET

ALLEGAN MI 49010

FACILITY LOCATION ALLEGAN WWTP

WITH CURRENT PERMIT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

(2-16)

MI 0020532 — PERMIT NUMBER

(17-19) 001 — DISCHARGE NUMBER

PRETREATMENT AND BIOSOLIDS

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	96	01	01	TO	96	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUANTITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
ANNUAL AMT OF SLUDGE DISPOSED BY OTHER METHOD 49017 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	4A	******	******	******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	**** ****			
ANNUAL AMT OF SLUDGE INCINERATED 49018 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	4A	******	******	******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	**** ****			
ANNUAL SLUDGE PRODUCTION, TOTAL 49019 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	143.56	4A	******	******	******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	**** ****			
ANNUAL AMOUNT OF SLUDGE LAND APPLIED 49020 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	143.56	4A	******	******	******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	**** ****			
ANNUAL AMT. SLUDGE DISPOSED SURFACE UNIT 49021 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	4A	******	******	******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/Y	******	******	******	**** ****			
ANNUAL AMT SLUDGE DISPOSED IN LANDFILL 49022 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	4A	******	******	******				P
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	**** ****			
ANNUAL AMT SLUDGE TRANSPORTED INTERSTATE 49023 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	4A	******	******	******				
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/Y	******	******	******	**** ****			

9961

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
PAUL FARLEY SUP	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years.)*		616	7855	97	01	27
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

* IF ANNUAL SLUDGE DISPOSED BY OTHER METHODS IS APPLICABLE, EXPLAIN METHOD OF DISPOSAL

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME City of Allegan WWTP
ADDRESS 112 Locust St.
Allegan, MI 49010
FACILITY
LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(1-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
MI 0020532	SLDP

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	95	01	01	TO	95	12	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

PRODUCTION AND USE

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (18-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
ANN. AMT SLUDGE DISPOSED BY OTHER METHOD 49017 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******	****			
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	***			
ANNUAL AMT OF SLUDGE INCINERATED 49018 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******	***			
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	***			
ANNUAL SLUDGE PRODUCTION, TOTAL 49019 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	173	(4A)	******	******	******	***			
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	***			
ANNUAL AMOUNT OF SLUDGE LAND APPLIED 49020 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	158.63	(4A)	******	******	******	***			
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	***			
ANNUAL AMT. SLUDGE DISPOSED SURFACE UNIT 49021 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******	****			
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	****			
ANNUAL AMT SLUDGE DISPOSED IN LANDFILL 49022 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******	****			
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	****			
ANNUAL AMT SLUDGE TRANSPORTED INTERSTATE 49023 + 0 0 SLUDGE	SAMPLE MEASUREMENT	******	0	(4A)	******	******	******	****			
	PERMIT REQUIREMENT	******	REPORT	METRIC TON/YR	******	******	******	****			

1995

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Dwight Fargo, Superintendent
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 616 | NUMBER 673-5511

DATE: YEAR 96 | MO 01 | DAY 12

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

See EnviroLand, Inc. (MIH000000596) Annual Report for land applier certifications.

ENVIROLAND INC.

P.O. BOX 139, DEWITT, MI 48820
(517) 669-5573 or (517) 669-8395
FAX (517) 669-8496

January 23, 1995

Mr. Dwight Fargo, Superintendent
City of Allegan Wastewater Treatment Plant
112 Locust Street
Allegan, MI 49010

RE: EPA 40 CFR Part 503 Annual Report

Dear Mr. Fargo:

Enclosed please find the completed Discharge Monitoring Report (DMR) forms for your facility for 1994. These forms, with the attached support documentation, represent the information you are required to report to EPA Region 5 under 40 CFR Part 503.18.

Please review this information and satisfy yourself of its accuracy. At the bottom of each page of please sign and date, and write or type in the name and title of the appropriate signatory. You must send the original and one copy to:

US EPA - Region 5
Water Compliance Branch (WCC-15J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

The completed forms are due on February 19, 1995 to Region 5.

We appreciate the opportunity to provide our services to you, and look forward to working with you in 1995. If you have any questions please contact me.

Sincerely,

Stephen J. Mahoney

Stephen J. Mahoney, CPAg
Senior Technical Specialist

Facilities Name/Location if different
NAME City of Allegan WWTP
ADDRESS 112 Locust St
Allegan, MI 49010
FACILITY
LOCATION

DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
MI 0020532	SLDP

MONITORING PERIOD

	YEAR (20-21)	MO (22-23)	DAY (24-25)		YEAR (26-27)	MO (28-29)	DAY (30-31)
FROM	94	01	01	TO	94	12	31

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

PRODUCTION AND USE

No Discharge

NOTE: Read instructions before completing this form.

PARAMETER (12-17)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) (18-45) QUALITY OR CONCENTRATION (46-53) MINIMUM	(54-61) AVERAGE	MAXIMUM	UNITS	NO EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
ANNUAL SLUDGE PRODUCTION, TOTAL 49019 + 0 0	SAMPLE MEASUREMENT	XXXXXX	197.92	MT/	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
	PERMIT REQUIREMENT	XXXXXX	REPORT	YR	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
ANNUAL SLUDGE LAND APPLIED 49020 + 0 0	SAMPLE MEASUREMENT	XXXXXX	182.92	MT/	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
	PERMIT REQUIREMENT	XXXXXX	REPORT	YR	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
ANNUAL SLUDGE SURFACE DISPOSED 49021 + 0 0	SAMPLE MEASUREMENT	XXXXXX	0	MT/	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
	PERMIT REQUIREMENT	XXXXXX	REPORT	YR	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
ANNUAL SLUDGE LANDFILLED 49022 + 0 0	SAMPLE MEASUREMENT	XXXXXX	0	MT/	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
	PERMIT REQUIREMENT	XXXXXX	REPORT	YR	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
ANNUAL SLUDGE INCINERATED 49018 + 0 0	SAMPLE MEASUREMENT	XXXXXX	0	MT/	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
	PERMIT REQUIREMENT	XXXXXX	REPORT	YR	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
ANNUAL SLUDGE DISPOSED BY OTHER METHODS 49017 + 0 0	SAMPLE MEASUREMENT	XXXXXX	0	MT/	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
	PERMIT REQUIREMENT	XXXXXX	REPORT	YR	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
ANNUAL SLUDGE TRANSPORTED INTERSTATE 49023 + 0 0	SAMPLE MEASUREMENT	XXXXXX	0	MT/	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX
	PERMIT REQUIREMENT	XXXXXX	REPORT	yr	XXXXXX	XXXXXX	XXXXXX			XXXXX	XXXX

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Dwight Fargo
Superintendent, WWTP
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 616 | NUMBER 673-5571

DATE: YEAR 95 | MO 01 | DAY 25

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
If Annual Sludge Disposed by Other Methods is applicable, explain method of disposal
See EnviroLand, Inc. (MIH000000596) Annual report for land Applier certifications

ADDRESS

FACILITY

LOCATION

NPDES PERMIT NUMBER: NJ 0020532

DISCHARGE NUMBER: SLDP

MONITORING PERIOD: FROM YEAR 94 MO 01 DAY 01 TO YEAR 94 MO 12 DAY 31

Form Approved.
OMB No. 2040-0004
Approval expires 10-31-94

PRODUCTION AND USE

NOTE: Read instructions before completing this form.

PARAMETER		(3 Card Only) QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	UNITS	NO EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
TOXICITY CHARACTISTIC LEACHING PROCED. (TCLP) 46390 + 0 0	SAMPLE MEASUREMENT	XXXXXX	XXXXXX		N/A	XXXXXX	XXXXXX	PASS=0			
	PERMIT REQUIREMENT	XXXXXX	XXXXXX		REPORT	XXXXXX	XXXXXX	FAIL=1		1/YR	BATCH
POLYCHLORINATED BIPHENYLS (PCBs) 39516 + 0 0	SAMPLE MEASUREMENT	XXXXXX	XXXXXX		XXXXXX	XXXXXX	N/A	MG/ KG			
	PERMIT REQUIREMENT	XXXXXX	XXXXXX		XXXXXX	XXXXXX	49.999			1/yr	BATCH
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Dwight Fargo
WWTP Superintendent
TYPED OR PRINTED

I IDENTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10000 and/or maximum imprisonment of between 6 months and 5 years)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 616, NUMBER 673-5511

DATE: YEAR 95, MO 01, DAY 25

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

EnviroLand, Inc.

Sludge Field Application Form

Source ----------> Allegan WWTP
Date ------------> 12/28/94
EL Field # ------> TR-18-VM8
BGD Field # -----> MI-AL-TR18B-VM08
MDNR Field # ----> T01NR13W18-VM08
County ----------> Allegan
Township --------> Trowbridge
Legal Desc. -----> T01N-R13W-S18

Owned by ------> Virgil Merchant
Farmed by ------> Virgil Merchant
Address ------> 3406 108th Ave.
City ------> Allegan, MI 49010
Telephone ------> 616-673-3845
Lat. & Long. --->

Application Rate (Gal/Acre)	15,200
Application (Dry Ton/Acre)	1.3
Useable Acres	18.0
Acres Used This Month	15
Number of Seasons Used	2

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * * * * * *

C.E.C.(me/100g)-->	5.0	P (lbs/acre) ---->	93	K (lbs/acre) ---->	84
Soil pH---------->	5.9	P (ppm) -------->	47	K (ppm) -------->	42
Lime Index ------>	68	Ca (lbs/acre ---->	838	Mg (lbs/acre) --->	72

Fertilizer Recommendations

Crop to be Fertilized		Yield Goal	N	P2O5	K2O	Lime
Year 1994	Corn	140	160	0	200	2

* * * * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * * * *

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	50	+	0 lb N	=	50 lb N/Ac
Phos (lb P/Ac)	62	+	93 lb P	=	155 lb P/Ac
Pot (lb K/Ac)	11	+	84 lb K	=	95 lb K/Ac

* * * * * * * * * * * * * * * * * * SLUDGE ANALYSIS * * * * * * * * * * * * * * * * * * *

Date: 11/14/94

		Dry wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applie lb/acr	Life in Years
Density	(mg/l)-->	1.01	----	----					
Weight	(Lb/Gal)>	8.42	----	----					
Solids	(%)----->	2.10	----	----					
TKN	(%)----->	5.74	----	----					
Amm. N	(%)----->	0.88	----	----					
Nit. N	(%)----->	0.02	----	----					
Total Plant Avail. N------>		37		50					
Total P	(%)--->	2.32	46	62					
Total K	(%)--->	0.41	8	11					
Total Ca	(%)--->	1.365	27.30	36.70					
Total Mg	(%)--->	0.644	12.88	17.32					
Total SO4	(%)--->	0.15	3.00	4.03					
Total As	(ppm)->	20.30	0.041	0.055	37	N/A	0.020	0.075	678
Total Cd	(ppm)->	2.1	0.004	0.006	4.5	0.23	0.010	0.016	816
Total Cr	(ppm)->	46.7	0.093	0.126	2679	N/A	0.080	0.206	21,336
Total Cu	(ppm)->	372.5	0.745	1.002	125	6.3	1.990	2.992	125
Total Pb	(ppm)->	45.8	0.092	0.123	268	25.0	0.230	0.353	2,179
Total Hg	(ppm)->	4.14	0.008	0.011	15	N/A	0.010	0.021	1,348
Total Ni	(ppm)->	29.6	0.059	0.079	50	2.5	0.040	0.119	629
Total Se	(ppm)->	0.50	0.001	0.001	89	N/A	0.000	0.001	66,202
Total Zn	(ppm)->	523.5	1.047	1.408	250	12.5	1.190	2.598	178

EnviroLand, Inc.

Sludge Field Application Form

Source ----------> Allaegan WWTP
Date ------------> 12/28/94
EL Field # ------> TR-20-JC1
BGD Field # -----> MI-AL-TR20C-JC01
MDNR Field # ----> T01NR13W20-JC01
County ----------> Allegan
Township --------> Trowbridge
Legal Desc. -----> T01N-R13W-S20

Owned by ------> Jim chestnut
Farmed by ------> Jim Chestnut
Address ------> 3308 104th
City ------> Allegan, MI 49010
Telephone ------> 616-673-2857
Lat. & Long. --->

Application Rate (Gal/Acre)	16,206
Application (Dry Ton/Acre)	1.4
Useable Acres	17.0
Acres Used This Month	17
Number of Seasons Used	1

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * * * * * *

C.E.C.(me/100g)-->	9.9	P (lbs/acre) ---->	23	K (lbs/acre) ---->	128
Soil pH---------->	6.2	P (ppm) -------->	12	K (ppm) -------->	64
Lime Index ------>	67	Ca (lbs/acre ---->	1768	Mg (lbs/acre) --->	416

Fertilizer Recommendations

Crop to be Fertilized		Yield Goal	N	P2O5	K2O	Lime
Year 1994	Corn	140	100	80	170	2.5

* * * * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * * * *

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	54	+	0 lb N	=	54 lb N/Ac
Phos (lb P/Ac)	67	+	23 lb P	=	90 lb P/Ac
Pot (lb K/Ac)	12	+	128 lb K	=	140 lb K/Ac

* * * * * * * * * * * * * * * * * * SLUDGE ANALYSIS * * * * * * * * * * * * * * * * * * *

Date: 11/14/94

	Dry wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applie lb/acr	Life in Years
Density (mg/l)-->	1.01	----	----					
Weight (Lb/Gal)>	8.42	----	----					
Solids (%)----->	2.10	----	----					
TKN (%)----->	5.74	----	----					
Amm. N (%)----->	0.88	----	----					
Nit. N (%)----->	0.02	----	----					
Total Plant Avail. N------>	37		54					
Total P (%)--->	2.32	46	67					
Total K (%)--->	0.41	8	12					
Total Ca (%)--->	1.365	27.30	39.13					
Total Mg (%)--->	0.644	12.88	18.46					
Total SO4 (%)--->	0.15	3.00	4.30					
Total As (ppm)->	20.30	0.041	0.058	37	N/A	0.058		636
Total Cd (ppm)->	2.1	0.004	0.006	4.5	0.23	0.006		766
Total Cr (ppm)->	46.7	0.093	0.134	2679	N/A	0.134		20,011
Total Cu (ppm)->	372.5	0.745	1.068	248	12.4	1.068		232
Total Pb (ppm)->	45.8	0.092	0.131	268	49.5	0.131		2,043
Total Hg (ppm)->	4.14	0.008	0.012	15	N/A	0.012		1,264
Total Ni (ppm)->	29.6	0.059	0.085	99	5.0	0.085		1,169
Total Se (ppm)->	0.50	0.001	0.001	89	N/A	0.001		62,092
Total Zn (ppm)->	523.5	1.047	1.501	495	24.8	1.501		330

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Lester Jones	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	17,509
Farmed by ------>	Lester Jones	Field ------->	CH-07-LJ1	Application (Dry Ton/Acre)	1.8
Address ------>	P.O. Box 234	Date ------->	1/05/94	Useable Acres	63.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	55
Telephone ------>	616-521-4553 Home	Township ------->	Cheshire T01NR14W		
	616-521-4848 Bus.	Section ------->	7		

********** SOIL ANALYSIS AND CROP INFORMATION **********

C.E.C.(me/g) ---->	3.6	P (lbs/acre) ---->	154	K (lbs/acre) ---->	67
Soil pH-> 6.8		P (ppm) -------->	77	K (ppm) -------->	34
Lime Index ---->		Ca (lbs/acre ---->	914	Mg (lbs/acre) --->	288

Crop History		Yield Goal	Fertilizer Recommendations N	P2O5	K2O	Lime
Prev. yr.93	Alfalfa					
Year 1994	Alfalfa	7.0 Tons	0	0	350	0

********** ADDITIONS **********

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	65	+	0 lb N	=	65 lb N/Ac
Phos (lb P/Ac)	70	+	154 lb P	=	224 lb P/Ac
Pot (lb K/Ac)	20	+	67 lb K	=	87 lb K/Ac

********** SLUDGE ANALYSIS **********

		Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids	(%)--->	2.53	----	----	----					
TKN	(%)--->	2.94	0.07	----	----					
Amm. N	(%)--->	1.42	0.04	----	----					
Nit. N	(%)--->	0.03	0.00	----	----					
Total Plant Avail. N		-------->		35	65					
Total P	(%)--->	1.90	0.05	38	70					
Total K	(%)--->	0.55	0.01	11	20					
Total Ca	(%)--->	1.62	0.04	32.40	59.85					
Total Mg	(%)--->	0.4685	0.01	9.37	17.31					
Total SO4	(%)--->	0.0395	0.00	0.79	1.46					
Total Pb	(ppm)->	50.2	1.3	0.10	0.19	360	18.0	0.18	0.37	1,941
Total Zn	(ppm)->	591.0	15.0	1.18	2.18	180	9.0	2.29	4.47	82
Total Cu	(ppm)->	371.5	9.4	0.74	1.37	90	4.5	1.52	2.89	66
Total Ni	(ppm)->	19.0	0.5	0.04	0.07	36	1.8	0.06	0.13	513
Total Cd	(ppm)->	2.2	0.1	0.00	0.01	4.5	0.23	0.00	0.01	567
Total Cr	(ppm)->	39.9	1.0	0.08	0.15	2679		0.14	0.29	
Total Hg	(ppm)->	2.87	0.07	0.01	0.01	15		0.03	0.04	
Total Mo	(ppm)->	19.25	0.49	0.04	0.07	16		0.10	0.17	
Total Se	(ppm)->	0.50	0.01	0.00	0.00	89		0.00	0.00	
Total As	(ppm)->	13.35	0.34	0.03	0.05	37		0.03	0.08	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Carl Wahmhoff	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	7,400
Farmed by ------>	Wahmhoff Farms	Field ------->	LE-27-CW1	Application (Dry Ton/Acre)	0.9
Address ------>	35521 Baseline Rd.	Date ------->	10/04/93	Useable Acres	30.0
City ------>	Gobles, MI 49055	County ------->	Allegan	Acres Used This Month	30
Telephone ------>	616-628-4308	Township ------->	Lee T01NR15W		
		Section ------->	27		

SOIL ANALYSIS AND CROP INFORMATION

C.E.C.(me/g) ---->	1.1	P (lbs/acre) ---->	145	K (lbs/acre) ---->	40
Soil pH-> 6.3		P (ppm) -------->	73	K (ppm) -------->	20
Lime Index ---->	70	Ca (lbs/acre ---->	364	Mg (lbs/acre) --->	25

Crop History		Yield Goal	Fertilizer Recommendations			
			N	P2O5	K2O	Lime
Prev. yr.92	Idle					
Year 1993	Trees					

ADDITIONS

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	39	+	0 lb N	=	39 lb N/Ac
Phos (lb P/Ac)	37	+	145 lb P	=	182 lb P/Ac
Pot (lb K/Ac)	6	+	40 lb K	=	46 lb K/Ac

SLUDGE ANALYSIS

		Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids	(%)--->	2.90	----	----	----					
TKN	(%)--->	5.07	0.15	----	----					
Amm. N	(%)--->	1.42	0.04	----	----					
Nit. N	(%)--->	0.01	0.00	----	----					
Total Plant Avail. N	-------->			43	39					
Total P	(%)--->	2.09	0.06	42	37					
Total K	(%)--->	0.36	0.01	7	6					
Total Ca	(%)--->	1.91	0.06	38.20	34.18					
Total Mg	(%)--->	0.724	0.02	14.48	12.96					
Total SO4	(%)--->	0.032	0.00	0.64	0.57					
Total Pb	(ppm)->	62.3	1.8	0.12	0.11	110	5.5	0.18	0.29	987
Total Zn	(ppm)->	542.0	15.7	1.08	0.97	55	2.8	2.29	3.26	57
Total Cu	(ppm)->	377.0	10.9	0.75	0.67	28	1.4	1.52	2.19	41
Total Ni	(ppm)->	15.8	0.5	0.03	0.03	11	0.6	0.06	0.09	389
Total Cd	(ppm)->	2.9	0.1	0.01	0.01	4.5	0.23	0.00	0.01	867
Total Cr	(ppm)->	40.3	1.2	0.08	0.07	2679		0.14	0.21	
Total Hg	(ppm)->	4.72	0.14	0.01	0.01	15		0.03	0.04	
Total Mo	(ppm)->	15.90	0.46	0.03	0.03	16		0.10	0.13	
Total Se	(ppm)->	0.50	0.01	0.00	0.00	89		0.00	0.00	
Total As	(ppm)->	10.60	0.31	0.02	0.02	37		0.03	0.05	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Jim Chestnut	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	10,411
Farmed by ------>	Jim Chestnut	Field ------->	TR-20-JC6	Application (Dry Ton/Acre)	1.3
Address ------>	3308 104th Ave.	Date ------->	10/04/93	Useable Acres	34.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	34
Telephone ------>	616-673-2857	Township ------->	Trowbridge T01NR13W		
		Section ------->	20		

SOIL ANALYSIS AND CROP INFORMATION

C.E.C.(me/g) ---->	9.8	P (lbs/acre) ---->	54	K (lbs/acre) ---->	136
Soil pH->	6.2	P (ppm) -------->	27	K (ppm) -------->	68
Lime Index ---->	67	Ca (lbs/acre ---->	1768	Mg (lbs/acre) --->	376

Crop History		Yield Goal	Fertilizer Recommendations			
			N	P2O5	K2O	Lime
Prev. yr.93	Wheat					
Year 1994	Corn	140 Bu.	160	40	160	2.5

ADDITIONS

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	54	+	0 lb N	=	54 lb N/Ac
Phos (lb P/Ac)	53	+	54 lb P	=	107 lb P/Ac
Pot (lb K/Ac)	9	+	136 lb K	=	145 lb K/Ac

SLUDGE ANALYSIS

0.001304

		Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids	(%)--->	2.90	----	----	----					
TKN	(%)--->	5.07	0.15	----	----					
Amm. N	(%)--->	1.42	0.04	----	----					
Nit. N	(%)--->	0.01	0.00	----	----					
Total Plant Avail. N	-------->			43	54					
Total P	(%)--->	2.09	0.06	42	53					
Total K	(%)--->	0.36	0.01	7	9					
Total Ca	(%)--->	1.91	0.06	38.20	48.09					
Total Mg	(%)--->	0.724	0.02	14.48	18.23					
Total SO4	(%)--->	0.032	0.00	0.64	0.81					
Total Pb	(ppm)->	62.3	1.8	0.12	0.16	268	13.4		0.16	1,708
Total Zn	(ppm)->	542.0	15.7	1.08	1.36	490	24.5		1.36	359
Total Cu	(ppm)->	377.0	10.9	0.75	0.95	245	12.3		0.95	258
Total Ni	(ppm)->	15.8	0.5	0.03	0.04	98	4.9		0.04	2,463
Total Cd	(ppm)->	2.9	0.1	0.01	0.01	4.5	0.23		0.01	616
Total Cr	(ppm)->	40.3	1.2	0.08	0.10	2679			0.10	
Total Hg	(ppm)->	4.72	0.14	0.01	0.01	15			0.01	
Total Mo	(ppm)->	15.90	0.46	0.03	0.04	16			0.04	
Total Se	(ppm)->	0.50	0.01	0.00	0.00	89			0.00	
Total As	(ppm)->	10.60	0.31	0.02	0.03	37			0.03	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Carl Wahmhoff	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	12,600
Farmed by ------>	Wahmhoff Farms	Field ------->	LE-27-CW1	Application (Dry Ton/Acre)	2.3
Address ------>	35521 Baseline Rd.	Date ------->	6/07/93	Useable Acres	30.0
City ------>	Gobles, MI 49055	County ------->	Allegan	Acres Used This Month	30
Telephone ------>	616-628-4308	Township ------->	Lee T01NR15W		
		Section ------->	27		

SOIL ANALYSIS AND CROP INFORMATION

C.E.C.(me/g) ---->	1.1	P (lbs/acre) ---->	145	K (lbs/acre) ---->	40
Soil pH->	6.3	P (ppm) -------->	73	K (ppm) -------->	20
Lime Index ---->	70	Ca (lbs/acre ---->	364	Mg (lbs/acre) --->	25

Crop History	Yield Goal	Fertilizer Recommendations N	P2O5	K2O	Lime
Prev. yr.92	Idle				
Year 1993	Trees				

ADDITIONS

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	58	+	0 lb N	=	58 lb N/Ac
Phos (lb P/Ac)	69	+	145 lb P	=	214 lb P/Ac
Pot (lb K/Ac)	22	+	40 lb K	=	62 lb K/Ac

SLUDGE ANALYSIS

		Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids	(%)--->	4.30	----	----	----					
TKN	(%)--->	3.10	0.13	----	----					
Amm. N	(%)--->	0.81	0.04	----	----					
Nit. N	(%)--->	0.01	0.00	----	----					
Total Plant Avail. N	-------->		26		58					
Total P	(%)--->	1.54	0.07	31	69					
Total K	(%)--->	0.48	0.02	10	22					
Total Ca	(%)--->	1.19	0.05	23.80	53.77					
Total Mg	(%)--->	0.49	0.02	9.80	22.14					
Total SO4	(%)--->	0.047	0.00	0.94	2.12					
Total Pb	(ppm)->	39.8	1.7	0.08	0.18	110	5.5		0.18	612
Total Zn	(ppm)->	507.0	21.8	1.01	2.29	55	2.8		2.29	24
Total Cu	(ppm)->	337.0	14.5	0.67	1.52	28	1.4		1.52	18
Total Ni	(ppm)->	13.8	0.6	0.03	0.06	11	0.6		0.06	176
Total Cd	(ppm)->	0.8	0.0	0.00	0.00	4.5	0.23		0.00	1,245
Total Cr	(ppm)->	30.1	1.3	0.06	0.14				0.14	
Total Hg	(ppm)->	7.28	0.31	0.01	0.03				0.03	
Total Mo	(ppm)->	21.20	0.91	0.04	0.10				0.10	
Total Se	(ppm)->	0.50	0.02	0.00	0.00				0.00	
Total As	(ppm)->	7.10	0.31	0.01	0.03				0.03	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Doug Brown	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	14,983
Farmed by ------>	Doug Brown	Field ------->	TR-20-DB2	Application (Dry Ton/Acre)	2.7
Address ------>	3246 104th Ave.	Date ------->	6/07/93	Useable Acres	60.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	30
Telephone ------>	616-673-8168	Township ------->	Trowbridge T01NR13W		
		Section ------->	20		

SOIL ANALYSIS AND CROP INFORMATION

C.E.C.(me/g) ---->	9.2	P (lbs/acre) ---->	76	K (lbs/acre) ---->	194
Soil pH-> 6.6		P (ppm) -------->	38	K (ppm) -------->	97
Lime Index ---->	69	Ca (lbs/acre ---->	2160	Mg (lbs/acre) --->	560

Crop History		Yield Goal	Fertilizer Recommendations N	P2O5	K2O	Lime
Prev. yr.92	Beans					
Year 1993	Corn	140 Bu	160	0	80	0

ADDITIONS

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	69	+	0 lb N	=	69 lb N/Ac
Phos (lb P/Ac)	83	+	76 lb P	=	159 lb P/Ac
Pot (lb K/Ac)	26	+	194 lb K	=	220 lb K/Ac

SLUDGE ANALYSIS

3/19/93

	Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids (%)--->	4.30	----	----	----					
TKN (%)--->	3.10	0.13	----	----					
Amm. N (%)--->	0.81	0.04	----	----					
Nit. N (%)--->	0.01	0.00	----	----					
Total Plant Avail. N -------->			26	69					
Total P (%)--->	1.54	0.07	31	83					
Total K (%)--->	0.48	0.02	10	26					
Total Ca (%)--->	1.19	0.05	23.80	63.94					
Total Mg (%)--->	0.49	0.02	9.80	26.33					
Total SO4 (%)--->	0.047	0.00	0.94	2.53					
Total Pb (ppm)->	39.8	1.7	0.08	0.21	920	46.0		0.21	4,302
Total Zn (ppm)->	507.0	21.8	1.01	2.72	460	23.0		2.72	169
Total Cu (ppm)->	337.0	14.5	0.67	1.81	230	11.5		1.81	127
Total Ni (ppm)->	13.8	0.6	0.03	0.07	92	4.6		0.07	1,241
Total Cd (ppm)->	0.8	0.0	0.00	0.00	4.5	0.23		0.00	1,047
Total Cr (ppm)->	30.1	1.3	0.06	0.16				0.16	
Total Hg (ppm)->	7.28	0.31	0.01	0.04				0.04	
Total Mo (ppm)->	21.20	0.91	0.04	0.11				0.11	
Total Se (ppm)->	0.50	0.02	0.00	0.00				0.00	
Total As (ppm)->	7.10	0.31	0.01	0.04				0.04	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Virgil Merchant	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	21,818
Farmed by ------>	Virgil Merchant	Field ------->	TR-18-VM5	Application (Dry Ton/Acre)	3.5
Address ------>	3406 108th Ave	Date ------->	2/08/93	Useable Acres	11.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	11
Telephone ------>	616-673-3845	Township ------->	Trowbridge T01NR13W		
		Section ------->	18		

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * * * * *

C.E.C.(me/g) ---->	2.6	P (lbs/acre) ---->	136	K (lbs/acre) ---->	84
Soil pH->	6.6	P (ppm) -------->	68	K (ppm) -------->	42
Lime Index ---->	73	Ca (lbs/acre ---->	838	Mg (lbs/acre) --->	89

Crop History		Yield Goal	Fertilizer Recommendations			
			N	P2O5	K2O	Lime
Prev. yr.92	Wheat					
Year 1993	Corn	120 Bu.	140	0	180	0

* * * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * * *

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	176	+	0 lb N	=	176 lb N/Ac
Phos (lb P/Ac)	189	+	136 lb P	=	325 lb P/Ac
Pot (lb K/Ac)	29	+	84 lb K	=	113 lb K/Ac

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3/25/92

	Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids (%)--->	3.90	----	----	----					
TKN (%)--->	7.19	0.28	----	----					
Amm. N (%)--->	1.30	0.05	----	----					
Nit. N (%)--->	0.00	0.00	----	----					
Total Plant Avail. N -------->			50	176					
Total P (%)--->	2.67	0.10	53	189					
Total K (%)--->	0.41	0.02	8	29					
Total Ca (%)--->	1.37	0.05	27.40	97.22					
Total Mg (%)--->	0.393	0.02	7.86	27.89					
Total SO4 (%)--->	0.022	0.00	0.44	1.56					
Total Pb (ppm)->	75.6	2.9	0.15	0.54	260	13.0		0.54	485
Total Zn (ppm)->	400.0	15.6	0.80	2.84	130	6.5		2.84	46
Total Cu (ppm)->	670.0	26.1	1.34	4.75	65	3.3		4.75	14
Total Ni (ppm)->	11.8	0.5	0.02	0.08	26	1.3		0.08	310
Total Cd (ppm)->	2.5	0.1	0.01	0.02	4.5	0.23		0.02	254
Total Cr (ppm)->	28.2	1.1	0.06	0.20				0.20	
Total Hg (ppm)->	1.82	0.07	0.00	0.01				0.01	
Total Mo (ppm)->	19.70	0.77	0.04	0.14				0.14	
Total Se (ppm)->	0.50	0.02	0.00	0.00				0.00	
Total As (ppm)->	6.80	0.27	0.01	0.05				0.05	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Virgil Merchant	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	18,000
Farmed by ------>	Virgil Merchant	Field ------->	TR-18-VM6	Application (Dry Ton/Acre)	2.9
Address ------>	3406 108th Ave	Date ------->	2/08/93	Useable Acres	18.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	9
Telephone ------>	616-673-3845	Township ------->	Trowbridge T01NR13W		
		Section ------->	18		

* * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * * * * *

C.E.C.(me/g) ---->	2.9	P (lbs/acre) ---->	166	K (lbs/acre) ---->	152
Soil pH->	6.8	P (ppm) -------->	83	k (ppm) -------->	76
Lime Index ---->		Ca (lbs/acre ---->	838	Mg (lbs/acre) --->	151

Crop History		Yield Goal	Fertilizer Recommendations			
			N	P2O5	K2O	Lime
Prev. yr.92	Soybeans					
Year 1993	Corn	120 Bu	140	0	110	0

* * * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * * *

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	145	+	0 lb N	=	145 lb N/Ac
Phos (lb P/Ac)	156	+	166 lb P	=	322 lb P/Ac
Pot (lb k/Ac)	24	+	152 lb K	=	176 lb k/Ac

* * * * * * * * * * * * * * * * * SLUDGE ANALYSIS * * * * * * * * * * * * * * * * * *

3/25/92

		Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids	(%)--->	3.90	----	----	----					
TKN	(%)--->	7.19	0.28	----	----					
Amm. N	(%)--->	1.30	0.05	----	----					
Nit. N	(%)--->	0.00	0.00	----	----					
Total Plant Avail. N		-------->		50	145					
Total P	(%)--->	2.67	0.10	53	156					
Total K	(%)--->	0.41	0.02	8	24					
Total Ca	(%)--->	1.37	0.05	27.40	80.21					
Total Mg	(%)--->	0.393	0.02	7.86	23.01					
Total SO4	(%)--->	0.022	0.00	0.44	1.29					
Total Pb	(ppm)->	75.6	2.9	0.15	0.44	290	14.5		0.44	655
Total Zn	(ppm)->	400.0	15.6	0.80	2.34	145	7.3		2.34	62
Total Cu	(ppm)->	670.0	26.1	1.34	3.92	73	3.6		3.92	18
Total Ni	(ppm)->	11.8	0.5	0.02	0.07	29	1.5		0.07	420
Total Cd	(ppm)->	2.5	0.1	0.01	0.01	4.5	0.23		0.01	307
Total Cr	(ppm)->	28.2	1.1	0.06	0.17				0.17	
Total Hg	(ppm)->	1.82	0.07	0.00	0.01				0.01	
Total Mo	(ppm)->	19.70	0.77	0.04	0.12				0.12	
Total Se	(ppm)->	0.50	0.02	0.00	0.00				0.00	
Total As	(ppm)->	6.80	0.27	0.01	0.04				0.04	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Virgil Merchant	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	22,500
Farmed by ------>	Virgil Merchant	Field ------->	TR-18-VM3	Application (Dry Ton/Acre)	3.7
Address ------>	3406 108th Ave	Date ------->	2/08/93	Useable Acres	4.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	4
Telephone ------>	616-673-3845	Township ------->	Trowbridge T01NR13W		
		Section ------->	18		

* * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * * * * *

C.E.C.(me/g) ---->	2.6	P (lbs/acre) ---->	192	K (lbs/acre) ---->	176
Soil pH-> 6.2		P (ppm) -------->	96	K (ppm) -------->	88
Lime Index ----> 71		Ca (lbs/acre ---->	686	Mg (lbs/acre) --->	160

Crop History		Yield Goal	Fertilizer Recommendations N	P2O5	K2O	Lime
Prev. yr.92	Corn					
Year 1993	Corn	120 Bu	140	0	90	1

* * * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * * *

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	181	+	0 lb N	=	181 lb N/Ac
Phos (lb P/Ac)	195	+	192 lb P	=	387 lb P/Ac
Pot (lb K/Ac)	30	+	176 lb K	=	206 lb K/Ac

* * * * * * * * * * * * * * * * * SLUDGE ANALYSIS * * * * * * * * * * * * * * * * *
3/25/92

		Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids	(%)--->	3.90	----	----	----					
TKN	(%)--->	7.19	0.28	----	----					
Amm. N	(%)--->	1.30	0.05	----	----					
Nit. N	(%)--->	0.00	0.00	----	----					
Total Plant Avail. N	-------->			50	181					
Total P	(%)--->	2.67	0.10	53	195					
Total K	(%)--->	0.41	0.02	8	30					
Total Ca	(%)--->	1.37	0.05	27.40	100.26					
Total Mg	(%)--->	0.393	0.02	7.86	28.76					
Total SO4	(%)--->	0.022	0.00	0.44	1.61					
Total Pb	(ppm)->	75.6	2.9	0.15	0.55	260	13.0		0.55	470
Total Zn	(ppm)->	400.0	15.6	0.80	2.93	130	6.5		2.93	44
Total Cu	(ppm)->	670.0	26.1	1.34	4.90	65	3.3		4.90	13
Total Ni	(ppm)->	11.6	0.5	0.02	0.09	26	1.3		0.09	301
Total Cd	(ppm)->	2.5	0.1	0.01	0.02	4.5	0.22		0.02	246
Total Cr	(ppm)->	28.2	1.1	0.06	0.21				0.21	
Total Hg	(ppm)->	1.82	0.07	0.00	0.01				0.01	
Total Mo	(ppm)->	19.70	0.77	0.04	0.14				0.14	
Total Se	(ppm)->	0.50	0.02	0.00	0.00				0.00	
Total As	(ppm)->	6.80	0.27	0.01	0.05				0.05	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Jim Chestnut	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	12,923
Farmed by ------>	Jim Chestnut	Field ------->	TR-20-JC5	Application (Dry Ton/Acre)	2.1
Address ------>	3308 104th Ave.	Date -------->	12/07/92	Useable Acres	13.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	13
Telephone ------>	616-673-2857	Township ------->	Trowbridge T01NR13W		
		Section ------->	20		

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * * * * * *

C.E.C.(me/g) ---->	8.9	P (lbs/acre) ---->	57	K (lbs/acre) ---->	253
Soil pH-> 6.4		P (ppm) -------->	29	K (ppm) -------->	127
Lime Index ---->	69	Ca (lbs/acre ---->	2160	Mg (lbs/acre) --->	480

Crop History		Yield Goal	Fertilizer Recommendations			
			N	P2O5	K2O	Lime
Prev. yr.92	Wheat					
Year 1993	Corn	120 Bu.	140	30	30	0.6

* * * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * * *

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	104	+	0 lb N	=	104 lb N/Ac
Phos (lb P/Ac)	112	+	57 lb P	=	169 lb P/Ac
Pot (lb K/Ac)	17	+	253 lb K	=	270 lb K/Ac

* * * * * * * * * * * * * * * * * SLUDGE ANALYSIS * * * * * * * * * * * * * * * * *

3/25/92

	Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids (%)--->	3.90	----	----	----					
TKN (%)--->	7.19	0.28	----	----					
Amm. N (%)--->	1.30	0.05	----	----					
Nit. N (%)--->	0.00	0.00	----	----					
Total Plant Avail. N -------->			50	104					
Total P (%)--->	2.67	0.10	53	112					
Total K (%)--->	0.41	0.02	8	17					
Total Ca (%)--->	1.37	0.05	27.40	57.59					
Total Mg (%)--->	0.393	0.02	7.86	16.52					
Total SO4 (%)--->	0.022	0.00	0.44	0.92					
Total Pb (ppm)->	75.6	2.9	0.15	0.32	890	44.5		0.32	2,801
Total Zn (ppm)->	400.0	15.6	0.80	1.68	445	22.3		1.68	265
Total Cu (ppm)->	670.0	26.1	1.34	2.82	223	11.1		2.82	79
Total Ni (ppm)->	11.8	0.5	0.02	0.05	89	4.5		0.05	1,794
Total Cd (ppm)->	2.5	0.1	0.01	0.01	4.5	0.23		0.01	428
Total Cr (ppm)->	28.2	1.1	0.06	0.12				0.12	
Total Hg (ppm)->	1.82	0.07	0.00	0.01				0.01	
Total Mo (ppm)->	19.70	0.77	0.04	0.08				0.08	
Total Se (ppm)->	0.50	0.02	0.00	0.00				0.00	
Total As (ppm)->	6.80	0.27	0.01	0.03				0.03	

EnviroLand, Inc.
Sludge Field Application Form

Owned by ------>	Jim Chestnut	Source ------->	Allegan WWTP	Application Rate (Gal/Acre)	13,333
Farmed by ------>	Jim Chestnut	Field ------->	TR-20-JC3	Application (Dry Ton/Acre)	2.2
Address ------>	3308 104th Ave.	Date ------->	12/07/92	Useable Acres	21.0
City ------>	Allegan, MI 49010	County ------->	Allegan	Acres Used This Month	9
Telephone ------>	616-673-2857	Township ------->	Trowbridge T01NR13W		
		Section ------->	20		

* * * * * * * * * SOIL ANALYSIS AND CROP INFORMATION * * * * * * * * * * * * *

C.E.C.(me/g) ---->	6.5	P (lbs/acre) ---->	39	K (lbs/acre) ---->	64
Soil pH-> 5.9		P (ppm) -------->	20	K (ppm) -------->	32
Lime Index ---->	69	Ca (lbs/acre ---->	1600	Mg (lbs/acre) --->	282

Crop History		Yield Goal	Fertilizer Recommendations			
			N	P2O5	K2O	Lime
Prev. yr.92	Beans					
Year 1993	Corn	140 Bu	160	60	220	1

* * * * * * * * * * * * * * * * * ADDITIONS * * * * * * * * * * * * * * * * *

Nutrient	Sludge Additions		Soil Fertility Test		Total Estimated Nutrients
Nitrogen (lb N/Ac)	108	+	0 lb N	=	108 lb N/Ac
Phos (lb P/Ac)	116	+	39 lb P	=	155 lb P/Ac
Pot (lb K/Ac)	18	+	64 lb K	=	82 lb K/Ac

* * * * * * * * * * * * * * * * * SLUDGE ANALYSIS * * * * * * * * * * * * * * * * *

3/25/92

		Dry wt. basis	Wet wt. basis	Lbs/dry ton	Lbs Applied Per Acre	Allowable Lifetime Lbs/acre	Allowable Yearly Lbs/acre	Previous Applied lb/acre	Total Applied lb/acre	Life in Years
Solids	(%)--->	3.90	----	----	----					
TKN	(%)--->	7.19	0.28	----	----					
Amm. N	(%)--->	1.30	0.05	----	----					
Nit. N	(%)--->	0.00	0.00	----	----					
Total Plant Avail. N	-------->			50	108					
Total P	(%)--->	2.67	0.10	53	116					
Total K	(%)--->	0.41	0.02	8	18					
Total Ca	(%)--->	1.37	0.05	27.40	59.41					
Total Mg	(%)--->	0.393	0.02	7.86	17.04					
Total SO4	(%)--->	0.022	0.00	0.44	0.95					
Total Pb	(ppm)->	75.6	2.9	0.15	0.33	650	32.5		0.33	1,983
Total Zn	(ppm)->	400.0	15.6	0.80	1.73	325	16.3		1.73	187
Total Cu	(ppm)->	670.0	26.1	1.34	2.91	163	8.1		2.91	56
Total Ni	(ppm)->	11.8	0.5	0.02	0.05	65	3.3		0.05	1,270
Total Cd	(ppm)->	2.5	0.1	0.01	0.01	4.5	0.23		0.01	415
Total Cr	(ppm)->	28.2	1.1	0.06	0.12				0.12	
Total Hg	(ppm)->	1.82	0.07	0.00	0.01				0.01	
Total Mo	(ppm)->	19.70	0.77	0.04	0.09				0.09	
Total Se	(ppm)->	0.50	0.02	0.00	0.00				0.00	
Total As	(ppm)->	6.80	0.27	0.01	0.03				0.03	

Office of
Wastewater Treatment

All Roads Lead To ALLEGAN
A Bridge Worth Crossing
COUNCIL - MANAGER GOVERNMENT

112 Locust Street
Allegan, Michigan
49010-1390
Phone (616) 673-5511
Fax (616) 673-2869

July 28, 2003

USEPA
Region V
Ms. Eileen Furey, C-14J
77 West Jackson Blvd
Chicago, IL 60604-3590

RE: City of Allegan's Response to EPA's Request for Information.

Dear Ms. Furey,

On behalf of the City of Allegan, attached is my response to the Request for Information for Allied Paper/Portage Creek/Kalamazoo River Superfund Site dated March 28, 2003. Our attorney, in a separate mailing, will be forwarding the documents referred to in my response. If EPA has further questions or wishes to contact the City further about this, please contact the City's legal council, Scott G. Smith, City Attorney, and/or James P Enright, of Law, Weathers & Richardson, P.C., Bridgewater Place, 333 Bridge Street, N.W., Suite 800, Grand Rapids, MI 49504, (616) 459-1171.

Sincerely,

Dwight E. Fargo
Superintendent

cc Lisa Sutterfield
Jim Enright

Responses of the City of Allegan, Michigan to EPA's Request for Information Pursuant to Section 104(e) of CERCLA for Allied Paper/Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan

1. *Identify all persons consulted in the preparation of the responses to these Information Requests.*

   Dwight E. Fargo, City of Allegan Wastewater Treatment Plant Superintendent, 112 Locust Street, Allegan, Michigan 49010, (269) 673-5511, in consultation with Scott G. Smith, City Attorney, and James P. Enright, of Law, Weathers & Richardson, P.C., Bridgewater Place, 333 Bridge Street, N.W., Suite 800, Grand Rapids, Michigan 49504, (616) 459-1171.

2. *Identify all documents consulted, examined, or referred to in the preparation of the responses to these Information Requests and provide copies of all such documents.*

   The City of Allegan Wastewater Treatment Plant has extensive files. It would be unduly burdensome to identify all of those documents in detail. Relevant documents are attached to this response. Other documents are available for review by the U.S. Environmental Protection Agency upon request.

3. *If you have reason to believe that there may be a person(s) able to provide a more detailed or complete response to any Information Request, or who may be able to provide additional responsive documents, identify any such person(s).*

   None are known to us.

4. *Identify each publicly-owned treatment works or similar treatment facility (hereinafter "POTW") owned or operated by the City of Allegan at any time during the relevant period that discharged wastewaters directly or indirectly to the Kalamazoo River or tributaries thereof. Identify each POTW by current name and address, if available.*

   City of Allegan Wastewater Treatment Plant, 350 North Street, Allegan, Michigan 49010.

5. *For each POTW identified in response to Request #4, provide a detailed history of the ownership and operation of the facility during the relevant period. The detailed history should identify: (1) each owner and operator of the POTW during the relevant period; (2) for each owner or operator, the period of ownership or operation to the nearest month; (3) any parent corporation or other authority for any period when the facility was not publicly owned and operated; and (4) the current mailing address for each owner, operator, parent corporation or other authority.*

The Wastewater Treatment Plant has always been owned and operated by the City of Allegan. The City's mailing address is: City of Allegan, 112 Locust Street, Allegan, MI 49010.

6. *During the relevant period, did any POTW under your ownership, operation or control ever accept for co-treatment with municipal wastewaters, or accept for separate treatment, process wastewaters or other material from any person engaged in the production of pulp, paper, or paperboard products ("paper products") from virgin fiber (wood pulp derived directly from trees) or from secondary fiber (reused cardboard, paper or paper products, including pre- and post-consumer recycled materials)? The term "process wastewaters" means wastewaters generated during the manufacture of pulp, paper or paperboard products, exclusive of sanitary wastewaters. (A list of persons who, U.S. EPA believes, engaged in the production of paper products at and near the Site during the relevant period is enclosed as Attachment 4, but there may be additional persons known to you that are not included on the list.)*

The City of Allegan Wastewater Treatment Plant has never accepted process wastewater or other material from such persons for co-treatment or separate treatment. Moreover, the businesses listed in the Attachment 4 to the information request are not and have not been located in the area served by the City Allegan Wastewater Treatment Plant.

7. *If the answer to Request #6 is "yes," identify each person engaged in the production of paper products from whom you accepted process wastewaters or other material for treatment during the relevant period. Provide, if available, the current mailing address of each person so identified.*

Not applicable, for the reason stated in the response to Request #6.

8. *Other than the persons identified in response to Request #7, during the relevant period did any POTW under your ownership, operation or control ever accept process wastewaters or other materials containing PCBs or PCB compounds from any person, including industrial or commercial users of the sewerage system?*

The City of Allegan Wastewater Treatment Plant has never accepted any process wastewater or other materials containing PCBs.

In connection with the City's NPDES permit, the 1995 Discharge Monitoring Report has space for reporting the parameter PCBs. In that space, the sample measurement is stated to be "N/A." The meaning of "N/A" in this context is uncertain although, sometimes, it is an abbreviation for Not Analyzed. A copy of the relevant part of the 1995 Discharge Monitoring Report containing that information is enclosed. Please note, too, that we are not whether that report is correct in identifying 49.999 mg/kg as a permit requirement for PCBs, because the current NPDES permit does not include such a permit requirement, and we are not aware whether previous versions of the permit contained such a permit requirement.

9. *If your answer to Request #8 is "yes," identify each person from whom a POTW under your ownership, operation or control accepted process wastewaters or other material containing PCBs or PCB compounds for treatment during the relevant period. Provide, if available, the current mailing address of each person so identified.*

Not applicable, for the reason stated in the response to Request #8.

10. *For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, provide the following information:*

    a. *Identify the POTW, and its current address (if available).*

    b. *Identify the year and month that POTW primary wastewater treatment facilities were placed in operation. Provide a simplified schematic diagram of the wastewater treatment facilities of the POTW as then configured, showing each major treatment unit of the POTW,, including sludge handling facilities and dry weather and maximum hydraulic design wastewater flow rates.*

    c. *Identify the year and month that POTW secondary (biological) wastewater treatment facilities were placed in operation. Provide a simplified schematic diagram of the wastewater treatment facilities as then configured, showing each major treatment unit of the POTW, including sludge handling facilities and dry weather and maximum hydraulic design wastewater flow rates.*

    d. *Identify the year and month that POTW advanced (post-secondary) wastewater treatment facilities were placed in operation. Provide a simplified schematic diagram of the wastewater treatment facilities as then configured showing each major treatment unit, including sludge handling facilities dry weather and maximum hydraulic design wastewater flow rates.*

    Not applicable, for the reasons stated in the responses to Requests #7 and #9. Although no further response is required, the City believes it would be helpful to the Environmental Protection Agency to provide the following information about the history of the Wastewater Treatment Plant. Construction of the primary Wastewater Treatment Plant (Imhoff Tank) occurred in 1938. Construction of a secondary treatment plant (extended aeration activated sludge) occurred in 1978. Construction of flow equalization / sludge storage tanks (SCADA system) occurred in 1991. Treatment process expansion (aeration tank, clarifier, and aerobic digesters) occurred in 1995. A simplified schematic of the current Wastewater Treatment Plant is attached, as is additional information on the history of the City of Allegan Wastewater Treatment Plant .

11. *For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify the monthly average POTW effluent flow in million gallons per day (mgd) for each month during the relevant time period.*

Not applicable, for the reasons stated in the responses to Requests #7 and #9.

12. *For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify the monthly average POTW untreated wastewater, primary effluent, secondary effluent, as well as the final effluent total suspended solids (TSS) concentration (mg/1) and mass loading (lbs/day) for each month during the relevant period.*

Not applicable, for the reasons stated in the responses to Requests #7 and #9.

13. *For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify, on a monthly basis during the relevant time period, all available information and data regarding bypasses to the Kalamazoo River, or tributaries thereof: (1) of untreated sewage from the sewerage system tributary to the POTW; (2) of untreated sewage at the POTW headworks; and (3) of partially treated sewage from any point within the POTW (e.g., after primary treatment). Information may be in the form of monitored bypasses where flow records are available; actual or estimated time of bypass events; engineering estimates or studies that provide information on the occurrence of bypasses during specific rainfall events (e.g., amount of bypassing expected with a rainfall of one inch in 24 hours); engineering studies for upgrade of the sewerage systems to eliminate or minimize bypasses; and, any recollections of the frequency and extent of bypasses for discrete time periods based on dates upgrades to the sewerage system and/or POTW were made.*

Not applicable, for the reasons stated in the responses to Requests #7 and #9.

14. *For each POTW owned or operated by you that accepted process wastewaters from any person identified in response to Request #7 or Request #9, identify all data (daily, monthly and annual during the relevant period) for PCBs and PCB compounds for sewerage system and POTW bypass flows; the POTW influent flow; primary effluent flow; secondary treatment effluent flow; final effluent flow if different than the secondary effluent flow; and primary, secondary and combined wastewater sludge. Results from any historical or archived samples must be included in the response to this request.*

Not applicable, for the reasons stated in the responses to Requests #7 and #9. See, also, the response to Request #8.

15. *Identify the monthly amount of wastewater sludge generated at the POTW (tons/month, dry weight basis) during the relevant period, and describe the disposal method and disposal location for the sludge.*

The following responsive information is attached:

a. Records of sludge hauled in December 1992 and in 1993;

b. Relevant portions of Discharge Monitoring Reports for 1994 through 1999;

c. Biosolids Annual Reports for the periods Oct. 1, 1999 - Sept. 30, 2000, Oct. 1, 2000 - Sept. 30, 2001, and Oct. 1, 2001 - Sept. 30, 2002.

The City of Allegan does not have other responsive information.

16. *For each person identified in response to Request #7 or Request #9, provide the following information:*

a. Identify the name of the person, including the names of any successor owners or operators, during the entire period of time when you accepted process wastewaters from this person for discharge to the POTW;

b. Identify, to the nearest month, the period during which each person identified in response to Request #7 or Request #9 discharged process wastewaters or other material to the POTW; the monthly average process wastewater flow from that person; the monthly average TSS concentration (mg/1) and TSS mass loading (lbs/day) discharged from that person to the POTW; and any all PCB data for the process wastewater or other material discharged from that person to the POTW. Results from any historical or archived samples must be included in the response to this request.

c. Identify and produce all correspondence, notes of meetings, or any other documentation regarding the presence of PCBs in the wastewaters discharged to the sewerage system and any of your POTWs by each person identified in response to Request #7 or Request #9.

Not applicable, for the reasons stated in the responses to Requests #7 and #9.

17. *Identify all regulations, laws, ordinances or other regulatory controls that limited, directly or indirectly, the discharge of PCB-containing wastewaters to any of your POTWs during the relevant period.*

The City of Allegan's Sewer Use Ordinance prohibits the release into the sewer system of substances that could cause pass-through or interference. (Secs. 29-127 and 29-128.) The ordinance further prohibits discharge of waste not typically discharged to a sanitary sewer system, and of any substance that may cause the system's treatment residues, sludges, or scums to be unsuitable for reclamation and reuse or that inhibits marketing of treated sewage sludge. (Sec. 20-128.) Those prohibitions apply to wastewater containing PCBs to the extent that its release into the sewer system could cause interference (including inhibition or disruption of treatment processes or operations or sludge process, use, or disposal) or pass-through (including a discharge that violates Michigan's water pollution control statute. Finally, although the ordinance allows special arrangements or agreements allowing certain further discharges, PCBs are expressly excluded from the authorization for such discharges. (Sec 29-129.)

18. *Identify all federal, state, municipal, or local permits ever issued to you during the relevant period that address the release of any pollutants or hazardous substances, in effluents or in any other manner, to surface waters or sediments. This request includes, but is not limited to, copies of all National Pollutant Discharge Eliminations System ("NPDES") or state permits or orders, issued pursuant to the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 et seq., or Michigan law; U.S. Army Corps of Engineers permits. For each such issued permit, provide a copy of both the permit and the permit application.*

A copy of the City's current NPDES permit is attached. For prior versions of the permit and for permit applications, the Environmental Protection Agency is asked to contact the Michgian Department of Environmental Quality, Water Division.

19. *For each person identified in response to Request #7 or Request #9, provide copies of all industrial user permits, respective baseline monitoring reports and sewer use agreements issued or prepared for the relevant period.*

Not applicable, for the reasons stated in the responses to Requests #7 and #9.

20. *Provide a copy of each document retention policy that has been in existence at the wastewater treatment facility during the relevant period. If no written policy exists, describe in detail the guidelines and criteria followed by you during the relevant period to determine when documents are discarded, destroyed or retained.*

Records are retained as set forth in Section B 5 of the City's NPDES permit.

These answers are based on the best of my recollection and on review of the available records.

CITY OF ALLEGAN

Date: July 28, 2003

By _____

Dwight E. Fargo, Superintendent
Wastewater Treatment Plant

Attachments:

1. Simplified schematic of the current Wastewater Treatment Plant
2. Records of sludge hauled in December 1992 and in 1993
3. Relevant portions of Discharge Monitoring Reports for 1994 through 1999
4. Biosolids Annual Reports for the periods Oct. 1, 1999 - Sept. 30, 2000, Oct. 1, 2000 - Sept. 30, 2001, and Oct. 1, 2001 - Sept. 30, 2002
5. City's current NPDES permit